

VPDES PERMIT PROGRAM FACT SHEET

FILE NO:

This document gives pertinent information concerning the VPDES Permit listed below. This permit is being processed as a MINOR INDUSTRIAL permit.

1. PERMIT NO.: VA0083194 EXPIRATION DATE: May 2, 2010
2. FACILITY NAME AND LOCAL MAILING ADDRESS FACILITY LOCATION ADDRESS (IF DIFFERENT)
- Langley Air Force Base 633d Civil Engineer Squadron
Joint Base Langley-Eustis 37 Sweeney Boulevard
Hampton, VA 23665 Hampton, VA 23665
- CONTACT AT FACILITY: CONTACT AT LOCATION ADDRESS
- NAME: Ashley Timmreck)
TITLE: Environmental Engineer
PHONE: (757) 764-1130
3. OWNER CONTACT: (TO RECEIVE PERMIT) CONSULTANT CONTACT:
- NAME: Ms. Brenda Cook
TITLE: Deputy Base Engineer
COMPANY NAME: (IF DIFFERENT) ADDRESS:
ADDRESS: 633d Civil Engineer Squadron
37 Sweeney Boulevard Hampton, VA 23665
PHONE: (757) 764-2025
4. PERMIT DRAFTED BY: DEQ Water Permits, Regional Office
- Permit Writer(s): Debra L. Thompson Date(s): 6/1/10
Reviewed By: Squer Date(s): 10/14/10
5. PERMIT ACTION:
- () Issuance (X) Reissuance () Revoke & Reissue () Owner Modification
() Board Modification () Change of Ownership/Name [Effective Date:]
6. SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:
- | | |
|---------------|--|
| Attachment 1 | Site Inspection Report/Memorandum |
| Attachment 2 | Discharge Location/Topographic Map |
| Attachment 3 | Schematic/Plans & Specs/Site Map/Water Balance |
| Attachment 4 | TABLE I - Discharge/Outfall Description |
| Attachment 5 | TABLE II - Effluent Monitoring/Limitations |
| Attachment 6 | Effluent Limitations/Monitoring Rationale/Suitable
Data/Antidegradation/Antibacksliding |
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Modeling |
| Attachment 11 | 303(d) Listed Segments |
| Attachment 12 | TABLE III(a) and TABLE III(b) - Change Sheets |
| Attachment 13 | NPDES Industrial Permit Rating Worksheet and EPA Permit Checklist |
| Attachment 14 | Chronology Sheet |

APPLICATION COMPLETE: 8-18-10 (info rec'd 10-30-10, 2-3-10, 2-24-10, 3-18-10, 3-19-10,
4-1-10, 8-18-10)

7. PERMIT CHARACTERIZATION: (Check as many as appropriate)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Existing Discharge | <input checked="" type="checkbox"/> Effluent Limited |
| <input type="checkbox"/> Proposed Discharge | <input type="checkbox"/> Water Quality Limited |
| <input type="checkbox"/> Municipal | <input type="checkbox"/> WET Limit |
| SIC Code(s) | <input type="checkbox"/> Interim Limits in Permit |
| <input checked="" type="checkbox"/> Industrial | <input type="checkbox"/> Interim Limits in Other Document |
| SIC Code(s) 4581 | <input type="checkbox"/> Compliance Schedule Required |
| (Air Transportation) | |
| <input type="checkbox"/> POTW | <input type="checkbox"/> Site Specific WQ Criteria |
| <input type="checkbox"/> PVOTW | <input type="checkbox"/> Variance to WQ Standards |
| <input type="checkbox"/> Private | <input type="checkbox"/> Water Effects Ratio |
| <input checked="" type="checkbox"/> Federal | <input checked="" type="checkbox"/> Discharge to 303(d) Listed Segment |
| <input type="checkbox"/> State | <input checked="" type="checkbox"/> Toxics Management Program Required |
| <input type="checkbox"/> Publicly-Owned Industrial | <input type="checkbox"/> Toxics Reduction Evaluation |
| | <input checked="" type="checkbox"/> Storm Water Management Plan |
| | <input type="checkbox"/> Pretreatment Program Required |
| | <input type="checkbox"/> Possible Interstate Effect |
| | <input type="checkbox"/> CBP Significant Dischargers List |

8. RECEIVING WATERS CLASSIFICATION: River basin information.

Outfall No(s): 001,002,031,033

Receiving Stream: Brown's Creek, Trib of Southwest Branch of the Back River
River Mile: 7-SWB001.87
Basin: Chesapeake Bay/Atlantic Ocean & Small Coastal
Subbasin: NA
Section: 2
Class: II
Special Standard(s): a
Tidal: YES

Outfall No(s): 003,004,005,006,007,008,025,026,027,028,029,030,032,034,035
036,037,038,039,040,041,042,043,049,054,057,058,571

Receiving Stream: Southwest Branch of the Back River
River Mile: 7-SWB001.87
Basin: Chesapeake Bay/Atlantic Ocean & Small Coastal
Subbasin: NA
Section: 2
Class: II
Special Standard(s): a
Tidal: YES

Outfall No(s): 009,010,011,012,013/014,015,016,017/018,019,020,021,044,045
046,047,053

Receiving Stream: Northwest Branch of the Back River
River Mile: 7-SWB001.87
Basin: Chesapeake Bay/Atlantic Ocean & Small Coastal
Subbasin: NA
Section: 2
Class: II
Special Standard(s): a
Tidal: YES

Outfall No(s): 024,048,050,055

Receiving Stream: Tide Mill Creek, Trib of the Southwest Branch of Back River
River Mile: 7-SWB001.87
Basin: Chesapeake Bay/Atlantic Ocean & Small Coastal
Subbasin: NA
Section: 2
Class: II
Special Standard(s): a
Tidal: YES

Outfall No(s): 022,023,051,052,056

Receiving Stream: Tabbs Creek, Trib to the Northwest Branch of Back River
River Mile: 7-SWB001.87
Basin: Chesapeake Bay/Atlantic Ocean & Small Coastal
Subbasin: NA
Section: 2
Class: II
Special Standard(s): a
Tidal: YES

9. **FACILITY DESCRIPTION:** Describe the type facility from which the discharges originate.

Existing industrial discharge resulting from the process wash water (aero club wash water effluent) storm water runoff associated with industrial activities such as aircraft washing, refueling, maintenance and parking, fuel transfer and storage operation area. Cooling tower effluent is NOT discharged from this facility; rather it is conveyed to HRSD.

10. **LICENSED OPERATOR REQUIREMENTS:** (X) No () Yes Class:

11. **RELIABILITY CLASS:** Industrial Facility - NA

12. **SITE INSPECTION DATE:** 10/14/08 **REPORT DATE:** 10/17/08

Performed By: Mark Kidd and Debbie Thompson

SEE ATTACHMENT 1

13. **DISCHARGE(S) LOCATION DESCRIPTION:** Provide USGS Topo which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Name of Topo: Hampton & Newport News North Quadrant No.: 65D **SEE ATTACHMENT 2**

14. **ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.**

The aircraft washing (outfall 053) effluent goes into an oil/water separator before ultimate discharge to the storm sewer. The bulk fuel storage areas have secondary containment. There is no treatment provided for storm water runoff.

SEE ATTACHMENT 3 (CAN ALSO REFERENCE TABLE I)

15. **DISCHARGE DESCRIPTION:** Describe each discharge originating from this facility.

SEE TABLE I (OR CAN SUBSTITUTE PAGE 2C) - SEE ATTACHMENT 4

16. **COMBINED TOTAL FLOW:**

TOTAL: Rainfall dependant (for public notice)

NONPROCESS/RAINFALL DEPENDENT FLOW: _____ (Est.)

17. **STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS:**
(Check all which are appropriate)

☒ State Water Control Law
☒ Clean Water Act
☒ VPDES Permit Regulation (9 VAC 25-31-10 et seq.)
☒ EPA NPDES Regulation (Federal Register)
EPA Effluent Guidelines (40 CFR 133 or 400 - 471)
☒ Water Quality Standards (9 VAC 25-260-5 et seq.)
Wasteload Allocation from a TMDL or River Basin Plan

18. **EFFLUENT LIMITATIONS/MONITORING:** Provide all limitations and monitoring requirements being placed on each outfall.

SEE TABLE II - ATTACHMENT 5

19. **EFFLUENT LIMITATIONS/MONITORING RATIONALE:** Attach any analyses of an outfall by individual toxic parameter. As a minimum, it will include: statistics summary (number of data values, quantification level, expected value, variance, covariance, 97th percentile, and statistical method); wasteload allocation (acute, chronic and human health); effluent limitations determination; input data listing. Include all calculations used for each outfall and set of effluent limits and those used in any model(s). Include all calculations/documentation of any antidegradation or anti-backsliding issues in the development of any limitations; complete the review statements below. Provide a rationale for limiting internal waste streams and indicator pollutants. Attach chlorine mass balance calculations, if performed. Attach any additional information used to develop the limitations, including any applicable water quality standards calculations (acute, chronic and human health).

OTHER CONSIDERATIONS IN LIMITATIONS DEVELOPMENT:

VARIANCES/ALTERNATE LIMITATIONS: Provide justification or refutation rationale for requested variances or alternatives to required permit conditions/limitations. This includes, but is not limited to: waivers from testing requirements; variances from technology guidelines or water quality standards; WER/translator study consideration; variances from standard permit limits/conditions.

N/A

SUITABLE DATA: In what, if any, effluent data were considered in the establishment of effluent limitations and provide all appropriate information/calculations.

All suitable effluent data were reviewed.

ANTIDEGRADATION REVIEW: Provide all appropriate information/calculations for the antidegradation review.

The receiving stream has been classified as tier 1; therefore, no further review is needed. Permit limits have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

ANTIBACKSLIDING REVIEW: Indicate if antibacksliding applies to this permit and, if so, provide all appropriate information.

There are no backsliding issues to address in this permit (i.e., limits as stringent or more stringent when compared to the previous permit.

SEE ATTACHMENT 6

20. **SPECIAL CONDITIONS RATIONALE:** Provide a rationale for each of the permit's special conditions.

SEE ATTACHMENT 7

21. **TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE:** Provide the justification for any toxics monitoring program and/or toxics reduction program and WET limit.

SEE ATTACHMENT 8

22. **SLUDGE DISPOSAL PLAN:** Provide a description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit. N/A

23. **MATERIAL STORED:** List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

SEE ATTACHMENT 9

24. **RECEIVING WATERS INFORMATION:** Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-5 et seq.)]. Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied. Attach any memoranda or other information which helped to develop permit conditions (i.e. tier determinations, PReP complaints, special water quality studies, STORET data and other biological and/or chemical data, etc.

SEE ATTACHMENT 10

25. **305(b)/303(d) Listed Segments:** Indicate if the facility discharges to a segment that is listed on the current 303(d) list and, if so, provide all appropriate information/calculations.

This facility discharges directly to the Northwest and Southwest Branches to Tabbs Creek. This receiving stream segment has been listed in Category 5 of the 303(d) list for non-attainment of PCB in Fish Tissue. A TMDL has not been prepared or approved for this stream segment. The permit contains a TMDL reopener clause which will allow it to be modified, in compliance with Section 303(d)(4) of the Act once a TMDL is approved.

This facility discharges directly to the Northwest and Southwest Branches and Mainstem to Back River. This receiving stream segment has been listed in Category 5 of the 303(d) list for non-attainment of SAV(sub-aquatic vegetation) PCB in Fish Tissue, and Dissolved Oxygen. A TMDL has not been prepared or approved for this stream segment. The permit contains a TMDL reopener clause which will allow the it to be modified, in compliance with Section 303(d)(4) of the Act once a TMDL is approved.

26. **CHANGES TO PERMIT:** Use TABLE III(a) to record any changes from the previous permit and the rationale for those changes. Use TABLE III(b) to record any changes made to the permit during the permit processing period and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 11

27. **NPDES INDUSTRIAL PERMIT RATING WORKSHEET:**

TOTAL SCORE: 21.5 SEE ATTACHMENT 12

28. **DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from DEQ planning.

The discharge is not addressed in any planning document but will be included when the plan is updated.

29. **PUBLIC PARTICIPATION:** Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH/DSS COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and the Div. of Shellfish Sanitation and noted how resolved.

The VDH reviewed the application and waived their right to comment and/or object on the adequacy of the draft permit by memorandum dated February 22, 2010.

The DSS has no comments on the application/draft permit.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

EPA waived the right to comment and/or object to the adequacy of the draft permit.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved. Not Applicable.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

Not Applicable.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation, and no comments were received.

PUBLIC NOTICE INFORMATION: Comment Period: Start Date: November 18, 2010
End Date: December 20, 2010

Persons may comment in writing or by e-mail to the DEQ on the proposed issuance/reissuance/modification of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting **Debra L. Thompson** at: Department of Environmental Quality (DEQ), Tidewater Regional Office, 5636 Southern Boulevard, Virginia Beach, VA 23462. Telephone: 757-518-2162 E-mail: debra.thompson@deq.virginia.gov

Following the comment period, the Board will make a determination regarding the proposed issuance/reissuance/modification. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:

Two changes for this permit reissuance:

Deicing sampling and Reporting

Deicing event sampling and reporting requirements for all outfalls has been moved from Part I.A monitoring to Part I.B.7. "Special Conditions". This is a smooth transition as the "special event" monitoring and tracking of data generated from deicing event testing is better suited as a special condition, rather than effluent page requirement. The basis for requirements in this special condition are established through BPJ and EPA Multi-sector permit - Part 8, Subpart S, Sector S "Air Transportation".

Deicing activity was conducted infrequently at this facility during the last 5 year permit term; with monitoring and reporting listed on Part I.A. page of the permit, unnecessary time and paperwork was required. Essential information associated with a deicing event will be obtained through special condition language.

Flexibility for Collection of a Representative Sample for Outfall 024

Special condition language allowing flexibility for collection of a representative sample dependant upon the timing of the storm event and the tide cycle is included with this permit reissuance. A salinity/conductivity study was performed by the facility in support of this proposal. The salinity of the outfall is normally 14 ppt. The salinity of the sample collected during rain events ranged from 0.3ppy to 7ppt, when sampled +/- 2 hour window of low tide. The average is 4ppt. Optimally, best time to sample would be window of 1-1.5 hours after low tide. Therefore the sample shall be collected at Outfall 024(A) if it can be pulled from 2 hours after low tide as determined at Messick Point. If sample must be pulled from 2 hours prior to low tide up until 1 hour after low tide, the samples shall be pulled from Outfall 024(B).

ATTACHMENT 1

SITE INSPECTION REPORT/MEMORANDUM

Langley AFB

Facility:	LANGLEY AFB
County/city:	HAMPTON

VA0083194

VPDES NO.	VA0083194
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**DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTEWATER FACILITY
INSPECTION REPORT
PART 1**

Inspection date:	October 14, 2008	Date form completed:	October 17, 2008
Inspection by:	Mark R. Kidd	Inspection agency:	DEQ/TRO
Time spent:	6 hours	Announced Inspection:	[] Yes [X] No
Reviewed by: Kenneth T. Raum <i>KTR</i>	Photographs taken at site? [X] Yes [] No		
Present at inspection:	Jeree Grimes – Water Quality Asset Manager		
FACILITY TYPE:		FACILITY CLASS:	
() Municipal		() Major	
() Industrial		(X) Minor	
(X) Federal		() Small	
() VPANDC		() High Priority () Low Priority	
TYPE OF INSPECTION:			
Routine	X	Reinspection	Compliance/assistance/complaint
Date of previous inspection:	April 20, 2006	Agency:	DEQ/TRO
Population Served:	Connections Served		
Last Month Average: Influent	BOD ₅ (mg/l)	TSS (mg/l)	Flow (MGD)
	Other:		
Last Month Average: Effluent	BOD ₅ (mg/l)	TSS (mg/l)	Flow (MGD)
	Other:		
Last Quarter Average: Effluent	BOD ₅ (mg/l)	TSS (mg/l)	Flow (MGD)
	Other:		
Data verified in preface:	Updated?	NO CHANGES?	
Has there been any new construction?	YES	NO	X
If yes, were the plans and specifications approved?	YES	NO	NA
DEQ approval date:	NA		
COPIES TO: (x) DEQ/TRO; (x) DEQ/OWCP; (x) OWNER; () OPERATOR; () EPA-Region III; () Other:			

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PROBLEMS IDENTIFIED AT LAST INSPECTION:		CORRECTED	NOT CORRECTED
	Update the Storm Water Pollution Prevention Plan to include the required information for Representative Discharges.	X	
	Routine site inspections are to include the name of the inspector, the date and the time that the inspections were performed.	X	

SUMMARY

INSPECTION COMMENTS:	
	<p>Arrived on site and met with Ms. Jeree Grimes. The Storm Water Pollution Prevention Plan (SWP3) and associated documents were reviewed on site with the following noted:</p> <ol style="list-style-type: none">1. The SWP3 was revised during 2008 and a complete update is scheduled to be completed by December 2008.2. Annual training consists of three different programs to address the needs of different audiences.3. Quarterly Visual Examinations of Storm Water Quality are performed by J.R. Reed.4. A weather monitoring log is maintained by the facility and documents de-icing activities, tides, precipitation, and compliance monitoring activities.5. Quarterly BMP inspections are performed as specified in the SWP3. Monthly inspections are performed by specific work groups.6. Comprehensive Site Compliance Evaluations are performed and documented as required.
	<p>A site survey was conducted with the assistance of Ms. Grimes. Outfalls 001, 002, 010, 024, 053, 050, 056, and 057 were observed. Most outfalls are equipped with oil absorbent booms. Outfall 017 is sampled in lieu of Outfall 012 since Outfall 012 is typically submerged. The Outfalls and associated structures appeared well maintained and free of debris, trash, and oil sheens (Photos 1-4, 6). Several car/vehicle wash stations located on the grounds discharge to the HRSD collection system. Maintenance shops, storage areas, and vehicle maintenance garages were clean and well managed. Lubricants, oils, and other fluids are sheltered and stored on secondary containment pallets (Photo 5).</p>
	<p>As noted in previous inspections, both civilian and Air Force personnel are to be commended for the site conditions observed. Ms. Grimes is thanked for her assistance and cooperation during the inspection.</p>
	<p>The facility may wish to consider submitting an application to the Virginia Environmental Excellence Program (VEEP), which encourages and recognizes superior performance through environmental management systems and pollution prevention. More information on VEEP may be found at www.deq.virginia.gov/veep/.</p>

ATTACHMENT 2

DISCHARGE LOCATION/TOPOGRAPHIC MAP

Fotografia

LANCLEY AIR FORCE BASE

TABLE 1
Estimated 1990-1991 U.S. and Foreign Trade in
Manufactured Goods

LANGLEY AIR FORCE BASE

BRANCH

SOUTHWEST

Pine Grove
Terrace

VA0083194

2-2

Langley AFB



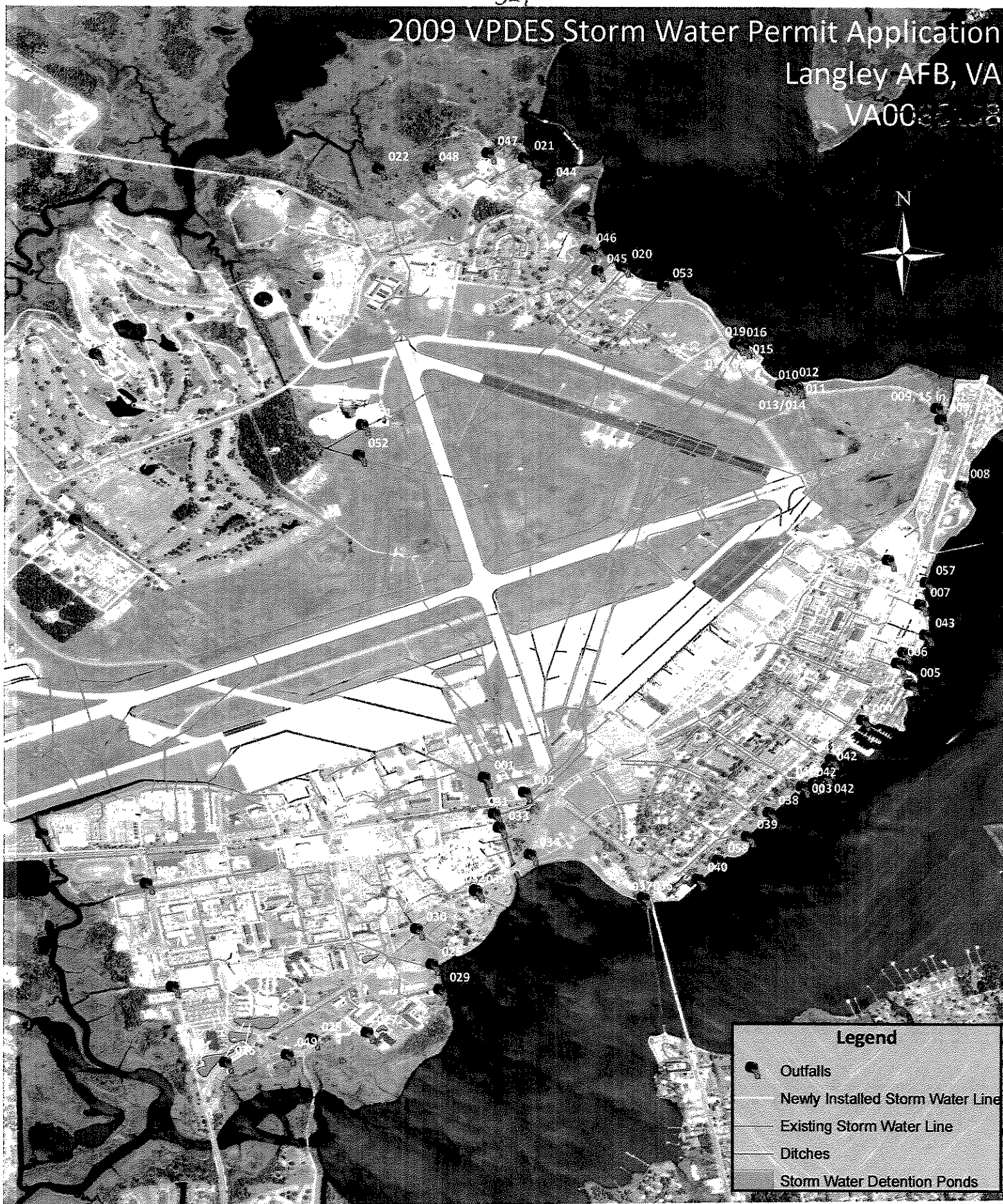
ATTACHMENT 3

SCHEMATIC/PLANS & SPECS/SITE MAP/
WATER BALANCE

2009 VPDES Storm Water Permit Application

Langley AFB, VA

VA0030008



1,000 500 0 1,000 2,000 3,000 4,000
Feet



1642 Pleasure House Road, Suite 104
Virginia Beach VA 23455

ATTACHMENT 4

TABLE I - DISCHARGE/OUTFALL DESCRIPTION

VDEQ FORM 2F-1

OUTFALL LOCATIONS WITH INDUSTRIAL ASSOCIATIONS

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
001	37° 04' 37" N	76° 21' 22" W	Brown's Creek, tributary to Back River – Southwest Branch	Six 36-inch reinforced concrete pipes (RCPs) and two 24-inch RCPs that discharge from a concrete headwall into a large, rip-rap granite rock lined drainage ditch (Brown's Creek), flows under Sweeney and Nearly Blvd., and into Back River. This outfall is subject to tidal influence.	Yes
002	37° 04' 35" N	76° 21' 17" W	Brown's Creek, tributary to Back River – Southwest Branch	Six 30-inch RCPs that discharge from a concrete headwall into the same drainage ditch (Brown's Creek) as Outfall 001. This outfall is subject to tidal influence.	Yes
003	37° 04' 36" N	76° 20' 40" W	Back River – Southwest Branch	A 24-inch RCP that runs parallel to Bowen Street and discharges directly into Back River from the sea wall that protects the officer residential area. This outfall is subject to tidal influence.	No
004	37° 04' 45" N	76° 20' 32" W	Back River – Southwest Branch	A 24-inch Terra-Cotta Pipe (TCP) that runs parallel to Plumb Street and discharges from a seawall into Back River at the base Marina. This outfall is subject to tidal influence.	No
005	37° 04' 50" N	76° 20' 26" W	Back River – Southwest Branch	Two 24-inch RCPs that run parallel to Douglas Street and discharge directly into Back River at a point along the CE Grounds Maintenance Storage Area river front. This outfall is subject to tidal influence.	Yes
006	37° 04' 52" N	76° 20' 28" W	Back River – Southwest Branch	A 24-inch RCP that discharges directly into Back River at a point directly northeast of the CE Grounds Maintenance Building. The outlet for this pipe	No

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
				is completely submerged under river water and sediment during low tide. Consequently, storm water flow from this outfall is severely restricted, meaning that a representative sample is pulled upstream.	
007	37° 05' 00" N	76° 20' 25" W	Back River – Southwest Branch	A 30-inch RCP that runs parallel to Andrews Street and discharges directly into Back River at the end of the NASA Wind Tunnel. This outfall is subject to tidal influence.	Yes
008	37° 05' 16" N	76° 20' 19" W	Back River – Southwest Branch	A 24-inch RCP with a tidal duckbill in place to prevent tidal influence that is located just south of Building 734. The area is very irregular and is filled with granite rocks to prevent tidal erosion. This outfall discharges directly into Back River.	No
009	37° 05' 24" N 37° 05' 23" N	76° 20' 22" W 76° 20' 26" W	Back River – Northwest Branch	A 24-inch RCP road culvert and a 15-inch RCP road culvert located northwest of the former Mile Long Building that discharges into a grass-lined drainage ditch draining directly into Back River. Erosion is present near the concrete headwall.	Yes
010	37° 05' 29" N	76° 20' 41" W	Back River – Northwest Branch	A 15-inch RCP located northwest of the former Mile Long Building that discharges directly into Back River. This outfall shares a similar discharge area to that of Outfall 011 and is subject to tidal influence.	Yes
011	37° 05' 29" N	76° 20' 41" W	Back River – Northwest Branch	A 30-inch RCP with a tidal duckbill in place to prevent tidal influence located northwest of the former Mile Long Building. The surrounding area is filled with granite rocks to prevent tidal erosion. This outfall shares a	Yes

HDR | 

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
				similar discharge area to that of Outfall 010 and discharges directly into Back River.	
012	37° 05' 29" N	76° 20' 42" W	Back River – Northwest Branch	A 33-inch RCP that discharges from a concrete headwall located northwest of the former Mile Long Building. This outfall is subject to tidal influence and discharges directly into Back River. Severe erosion is present near the concrete headwall.	Yes
013/014	37° 05' 29" N	76° 20' 43" W	Back River – Northwest Branch	Two 30-inch RCPs located northwest of the former Mile Long Building that discharge directly into Back River. These outfalls are subject to tidal influence.	Yes
015	37° 05' 34" N	76° 20' 48" W	Back River – Northwest Branch	A 30-inch RCP with a tidal duckbill to prevent tidal influence located north of the former LTA swimming pool (Building 902). This outfall shares a similar discharge area to that of Outfalls 016, 017/018, and 019 and discharges directly into Back River.	Yes
016	37° 05' 34" N	76° 20' 49" W	Back River – Northwest Branch	A 30-inch RCP located north of the former LTA swimming pool (Building 902). This outfall shares a similar discharge area to that of Outfalls 015, 017/018, and 019 and discharges directly into Back River. This outfall is subject to tidal influence.	Yes
017/018	37° 05' 34" N	76° 20' 49" W	Back River – Northwest Branch	A 30-inch RCP located north of the former LTA swimming pool (Building 902). This outfall shares a similar discharge area to that of Outfalls 015,	Yes

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
				016, and 019 and discharges directly into Back River. This outfall is subject to tidal influence.	
019	37° 05' 34" N	76° 20' 49" W	Back River - Northwest Branch	A 30-inch RCP located north of the former LTA swimming pool (Building 902). This outfall shares a similar discharge area to that of Outfalls 015, 016, and 017/018 and discharges directly into Back River. This outfall is subject to tidal influence.	No
020	37° 05' 44" N	76° 21' 04" W	Back River - Northwest Branch	A 15-inch RCP and a 24-inch RCP that discharge into a 1-foot deep by 5-foot wide drainage ditch, which discharges directly into the Back River. The pipes and drainage ditch are located just north of the Non-Commissioned Officers Club.	Yes
021	37° 05' 59" N	76° 21' 18" W	Back River - Northwest Branch	A 15-inch concrete pipe that discharges into an irregular drainage ditch filled with heavy vegetation and debris. The drainage ditch discharges to a marshy area located along the northwest branch of the Back River, east of the Mobile Radar Building Area.	No
022	37° 05' 56" N	76° 21' 35" W	Tabb Creek	This outfall is a 24-inch terra cotta pipe that extends into the tidal marsh. It is partially buried by marsh sediments, is broken in several places, and can only be seen at low tide.	Yes

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
023	37° 05' 33" N	76° 22' 13" W	<i>unnamed trib to</i> Tabb Creek	Drain valve for secondary containment curbing located near the southern corner of the Entomology Equipment Staging Shed (Building 1309). The outfall discharges to a grass-lined ditch, which discharges into a larger drainage ditch leading into the headwaters of Tide Mill Creek.	No
024	37° 04' 33" N	76° 22' 29" W	Tide Mill Creek	Outfall 024 is located at the point where Tide Mill Creek passes through a culvert under Sweeney Boulevard. This outfall is located due west of Base Supply. The pipes are subject to tidal influence. Drainage Area 024 covers all of the land draining to Tide Mill Creek upstream of this point. This outfall is subject to tidal influence.	Yes
024-1	37° 04' 36.5" N	76° 21' 57" W	Tide Mill Creek	Outfall 024-1 is a concrete pipe set in a headwall at the head of Tides Mill Creek. This outfall is subject to tidal influence.	Yes
024-2	37° 04' 35" N	76° 22' 0" W	Tide Mill Creek	Outfall 024-2 is a headwall with two concrete pipes that drain the Civil Engineering Building front parking lot. This outfall is subject to tidal influence.	Yes
024-3	37° 04' 37.5" N	76° 21' 58" W	Tide Mill Creek	Outfall 024-3 is a 36-inch diameter concrete pipe in a headwall that discharges into a tributary of the upper reach of Tides Mill Creek. This tributary joins Tides Mill Creek on the airfield side of the creek. This outfall is subject to tidal influence.	Yes

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
024-4	37° 04' 36.5" N	76° 22' 4.5" W	Tide Mill Creek	Outfall 024-4 is a headwall with three concrete pipes that drain the back parking lot area of the Civil Engineering building. This outfall is subject to tidal influence.	Yes
024-5	37° 04' 37" N	76° 22' 6" W	Tide Mill Creek	Outfall 024-5 is located on the airfield bank of Tides Mill Creek, and is a headwall with three 24-inch concrete pipes. This outfall is subject to tidal influence.	Yes
024-6	37° 04' 37" N	76° 22' 8.5" W	Tide Mill Creek	Outfall 024-6 is a headwall with one concrete pipe, located behind Civil Engineering and Base Supply. This outfall is subject to tidal influence.	Yes
024-7	37° 04' 38" N	76° 22' 11" W	Tide Mill Creek	Outfall 024-7 is a headwall located on the airfield bank of Tides Mill Creek, with two 24-inch concrete pipes set in the headwall. This outfall is subject to tidal influence.	Yes
024-8	37° 04' 37.5" N	76° 22' 10.5" W	Tide Mill Creek	Outfall 024-8 is located opposite Outfall 024-7, on the Base Supply bank of Tides Mill Creek, and is a headwall with one concrete pipe with flared ends. A concrete drainage swale runs from the outfall to the creek bank. This outfall is subject to tidal influence.	Yes
024-9	37° 04' 35" N	76° 22' 15" W	Tide Mill Creek	Outfall 024-9 is also located behind Base Supply, and has a head wall with one pipe with flared ends. A concrete channel also runs from this outfall to the creek bank. This outfall is subject to tidal influence.	Yes

HCR | 

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
024-10	37° 04' 37" N	76° 22' 15.5" W	Tide Mill Creek	Outfall 024-10 is a headwall with two 30-inch pipes set in the airfield bank of Tides Mill Creek. Downstream of Outfall 024-10 Tides Mill Creek turns 90 degrees and flows along the side of Base Supply. This outfall is subject to tidal influence.	Yes
024-11	37° 04' 32.5" N	76° 22' 24" W	Tide Mill Creek	Outfall 024-11 is a headwall with four 36 inch pipes located on a spur of Tides Mill Creek where the creek turns 90 degrees. This outfall is subject to tidal influence.	Yes
024-12	37° 04' 28" N	76° 22' 05" W	Tide Mill Creek	Outfall 024-12 is located on Sweeney Boulevard near Base Supply at a culvert which conducts flow in a drainage ditch along the north side of Sweeney Boulevard under the road to a ditch along the southern side of the road. This outfall is subject to tidal influence.	Yes
024-13	37° 04' 32.5" N	76° 22' 20" W	Tide Mill Creek	Outfall 024-13 is a headwall in the airfield bank of Tides Mill Creek. This outfall is subject to tidal influence.	Yes
025	37° 04' 13" N	76° 21' 29" W	Back River - Southwest Branch	A 30-inch Corrugated Metal Pipe (CMP) located east of the Langley Inns building that discharges directly into Back River. It appears as if the CMP has separated completely from the headwall. This outfall is subject to tidal influence.	No

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
026	37° 04' 00" N	76° 21' 56" W	Back River – Southwest Branch	Two 24-inch and two 48-inch RCPs, each with tidal duckbills in place to prevent tidal influence, discharge from a concrete headwall into a grass-lined drainage ditch, approximately 5 feet deep by 8 feet wide, located near the LaSalle Avenue Gate and Guardhouse, which discharges into a marshy area that is located along a small southwestern branch of Back River.	No
027	37° 04' 04" N	76° 21' 37" W	Back River – Southwest Branch	A 2-foot-deep by 10-foot-wide grass-lined drainage ditch located next to the Youth Center (Building 61). This outfall is subject to tidal influence.	No
028	37° 04' 03" N	76° 21' 45" W	Back River – Southwest Branch	An 18-inch CMP located east of the LaSalle Street Gate and Guardhouse that discharges into a marshy area located near the mouth of Tides Mill Creek.	No
029	37° 04' 09" N	76° 21' 28" W	Back River – Southwest Branch	A 30-inch RCP with a flared outlet located east of the Langley Inns building that discharges directly into Back River. This outfall is subject to tidal influence.	No
030	37° 04' 17" N	76° 21' 32" W	Back River – Southwest Branch	Two 24-inch RCPs and one 48-inch RCP set in a concrete headwall discharge into a large drainage ditch that drains into Back River. The pipes and drainage ditch are located south of the Hospital (Building 254) and the Dental Clinic (Building 92). This outfall is subject to tidal influence.	No
031	37° 04' 32" N	76° 21' 21" W	Brown's Creek, tributary to Back River – Southwest Branch	A 24-inch RCP with a flared outlet located east of the Hospital (Building 254) that discharges into Brown's Creek. This outfall is subject to tidal influence.	No

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
032	37° 04' 22" N	76° 21' 23" W	Back River – Southwest Branch	A 24-inch RCP with a concrete headwall that discharges into a 2 feet deep by 8 feet wide grass-lined drainage ditch. This outfall shares a similar drainage area with that of Outfall 035. The pipe and headwall are located northeast of the Dental Clinic (Building 92). This outfall is subject to tidal influence.	No
033	37° 04' 31" N	76° 21' 20" W	Brown's Creek, tributary to Back River – Southwest Branch	A 24-inch RCP with a flared outlet located east of the Hospital (Building 254) that discharges into Brown's Creek. This outfall is subject to tidal influence.	No
034	37° 04' 24" N	76° 21' 18" W	Back River – Southwest Branch	A 24-inch RCP with a flared outlet located southeast of the Hospital (Building 254) that discharges into Brown's Creek.	No
035	37° 04' 22" N	76° 21' 23" W	Back River – Southwest Branch	Two 10-inch metal pipes set in a concrete headwall discharge share a similar discharge area with that of Outfall 032. One of the metal pipes is equipped with a backflow-preventing flapper valve at the outlet. This outfall is located due east of the Dental Clinic and is subject to tidal influence.	No
036	37° 04' 21" N	76° 21' 01" W	Back River – Southwest Branch	A 15-inch Cast Iron Pipe (CIP) that discharges directly into the Back River from the sea wall adjacent to the N. King Street Bridge. This outfall is subject to tidal influence.	No

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
037	37° 04' 21" N	76° 21' 01" W	Back River – Southwest Branch	A 15-inch CIP immediately adjacent to Outfall 036 discharges directly into the Back River from the sea wall adjacent to the N. King Street Bridge. This outfall is subject to tidal influence.	No
038	37° 04' 33" N	76° 20' 45" W	Back River – Southwest Branch	A 36-inch RCP that runs parallel to Bryant Avenue and discharges directly into the Back River from the sea wall that protects the officer residential area. This outfall is subject to tidal influences.	No
039	37° 04' 29" N	76° 20' 48" W	Back River – Southwest Branch	A 24-inch TCP that runs parallel to Wright Avenue and discharges directly into Back River from the sea wall that protects the officer residential area. This outfall is subject to tidal influence.	No
040	37° 04' 24" N	76° 20' 54" W	Back River – Southwest Branch	A 15-inch concrete pipe that discharges directly into Back River from the sea wall located along the perimeter of the Officer's Club building. This outfall is subject to tidal influence.	No
041	37° 04' 40" N	76° 20' 36" W	Back River – Southwest Branch	A 24-inch TCP that runs parallel to Thompson Street and discharges directly into Back River from the sea wall that protects Buildings 182 and 184. This outfall is subject to tidal influence.	No
042	37° 04' 39" N 37° 04' 39" N 37° 04' 38" N 37° 04' 37" N	76° 20' 39" W 76° 20' 39" W 76° 20' 38" W 76° 20' 39" W	Back River – Southwest Branch	Three 12-inch concrete pipes and one 6-inch concrete pipe that discharge directly into Back River from the sea wall that protects the ACC Communications Computer System building. This outfall is subject to tidal influence.	No

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4-11

633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
043	37° 04' 56" N	76° 20' 24" W	Back River - Southwest Branch	A 24-inch RCP located along the river front of the NASA Building 643 and covered with concrete and rock rip-rap. This outfall discharges directly into the Back River and is subject to tidal influence.	No
044	37° 05' 55" N	76° 21' 14" W	Back River - Northwest Branch	An 18-inch concrete pipe discharge from a concrete headwall into a heavily vegetated ditch. The ditch is likely subject to tidal influence.	No
045	37° 05' 44" N	76° 21' 08" W	Back River - Northwest Branch	An 18-inch RCP that drains into a 1-foot deep by 5-foot wide rectangular, grass-lined drainage ditch located east of the Bayview Towers parking lot. The pipe and drainage ditch are subject to tidal influence.	No
046	37° 05' 47" N	76° 21' 09" W	Back River - Northwest Branch	A 24-inch RCP with a concrete headwall that discharges into an irregular drainage ditch located just east of the Bayview Towers parking lot. The pipe and drainage ditch are subject to tidal influence.	No
047	37° 05' 59" N	76° 21' 22" W	Back River - Northwest Branch	A 24-inch RCP culvert that drains into a shallow grass-line drainage ditch that discharges into the same marshy area as Outfall 021. This outfall is located within the Mobile Radar Building Area.	No
048	37° 05' 57" N	76° 21' 30" W	Tabb Creek	Pipe located adjacent to the Small Arms Range, under a small footbridge outside the Range berm. Vegetation is extremely thick in this area, making the outfall difficult to observe.	Yes
049	37° 04' 01" N	76° 21' 48" W	Back River - Southwest Branch	A 15-inch RCP that feeds into a grass-lined drainage ditch located near the LaSalle Street Gate and Guardhouse. This outfall discharges into a marshy area that is located near Tide Mill Creek.	No

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
050	37° 04' 23" N	76° 22' 07" W	Ditch to Tide Mill Creek	Two 12-inch concrete pipes which lead into a concrete headwall with two 12-inch concrete structures that flare out. This outfall discharges into a grassy drainage ditch approximately 130 feet north of Building 30 and flows into Tide Mill Creek. <i>OWS goes directly to sanitary - No process flows</i>	Yes
051	37° 05' 20" N	76° 21' 39" W	Canal to Tabb Creek	Two 30-inch concrete pipes and one 24-inch concrete pipe that feed into a concrete headwall. This outfall discharges into a vegetated, tidally-influenced canal that flows towards Tabb Creek.	Yes
052	37° 05' 23" N	76° 21' 38" W	Canal to Tabb Creek	A 30-inch concrete pipe that feeds into a concrete headwall. The pipe discharges to a vegetated, tidally-influenced canal that flows towards Tabb Creek.	Yes
053	37° 05' 42" N	76° 20' 59" W	Back River - Northwest Branch	This outfall is always submerged, and cannot be seen even at low tide. It is only noticeable when a strong storm water discharge causes water to visibly bubble up from the submerged outfall. Per the storm sewer map, the outfall consists of one 24-inch terra cotta pipe and one 18-inch concrete pipe. The Aero Club wash rack discharges to an upstream portion of this storm sewer line, at Manhole 1358.	Yes

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
054	37° 04' 58" N	76° 20' 22" W	Back River - Southwest Branch	This outfall is included in Langley AFB's VPDES permit, although it is not a storm water outfall. It is a dedicated pipe through which the Building 640 cooling tower discharges blow-down water. This pipe is not visible from the surface, since it runs underground from the cooling tower into the Back River, where it is submerged.	No
055	37° 04' 09" N	76° 22' 05" W	Tide Mill Creek	Two 12-inch RCP pipes discharge from a headwall into an unnamed tributary of Tides Mill Creek. This outfall drains storm water from the parking lot area between Buildings 21 and 23.	No
056	37° 05' 11" N	76° 22' 16" W	<i>unnamed trib to</i> Tabb Creek	A 24-inch concrete pipe that leads into a concrete headwall located on the corner of Durand Loop near the Maintenance Shop (Building 1370).	Yes
057	37° 05' 03" N	76° 20' 24" W	Back River - Southwest Branch	VDEQ-identified internal outfall consisting of discharge points for storm water accumulation retained in the six secondary containment dikes for the Bulk Fuels Storage Yard.	Yes
058	37° 04' 26" N	76° 20' 51" W	Back River - Southwest Branch	A concrete pipe that is <u>currently capped</u> would discharge directly into Back River from the sea wall located at the southern most point along the perimeter of the semi-circular wall. This outfall would not subject to tidal influence. It is not currently active.	No
571	37° 05' 06" N	76° 20' 29" W	Back River - Southwest Branch	VDEQ-identified internal outfall consisting of discharge points for storm water accumulation retained in the six secondary containment dikes for the	Yes

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633d Air Base Wing HAMPTON, VIRGINIA



Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
				Bulk Fuels Storage Yard	



ATTACHMENT 5

TABLE II - EFFLUENT MONITORING/LIMITATIONS

TABLE II - INDUSTRIAL STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 001, 002

Outfall Description: storm water runoff from aircraft maintenance, aircraft runway operationsSIC CODE: 4581(X) Final Limits () Interim Limits **Effective Dates - From: issuance To: expiration**

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS [a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
FLOW (MG)		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	NA	NL	1/6Months	Estimate [b]
pH (S.U.)		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	6.0	9.0	1/6Months	Grab
Total Petroleum Hydrocarbons (mg/l) [c]		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	NA	NL	1/6Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following: 1st semi-annual (January 1-June 30); 2nd semi-annual (July 1- December 31) .

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.B.9. and I.C. for additional storm water sampling and reporting requirements.

[b] Estimate of the total volume of the discharge during the storm event.

[c] See Parts I.B.4. and I.B.5. for quantification levels and reporting requirements, respectively.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts

3. Any deicing activities conducted with in this outfall drainage area shall be monitored and reported in accordance with Special Condition I.B.7.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment (9 VAC 25-252-260 Sector S - Air Transportation and protection of water quality)

TABLE II - INDUSTRIAL STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 010, 053, 056

Outfall Description: storm water runoff from aircraft maintenance, aircraft runway operations, Aero club wash water (053 only) & refueling activities

SIC CODE: 4581

(X) Final Limits () Interim Limits **Effective Dates - From: issuance To: expiration**

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS [a]		
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
FLOW (MG)		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	NA	NL	1/6Months	Estimate [b]
pH (S.U.)		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	6.0	9.0	1/6Months	Grab
Total Petroleum Hydrocarbons (mg/l) [c]		(9 VAC 25-252-260 Sector S - Air Transportation) (9 VAC-25-120 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites	NA	NA	NL	1/6Months	Grab
Naphthalene (ug/l) [c]		(9 VAC-25-120 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites	NA	NA	NL	1/6Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following: 1st semi-annual (January 1-June 30); 2nd semi-annual (July 1- December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.B.9. and I.C. for additional storm water sampling and reporting requirements.

[b] Estimate of the total volume of the discharge during the storm event.

[c] See Parts I.B.4. and I.B.5. for quantification levels and reporting requirements, respectively.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts

3. Any deicing activities conducted with in this outfall drainage area shall be monitored and reported in accordance with Special Condition I.B.7.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)

2. Water Quality Standards (9 VAC 25-260 et. seq.)

3. Best Professional Judgment (9 VAC 25-252-260 Sector S - Air Transportation and protection of water quality, (9 VAC-25-120-10 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites, and protection of water quality.

TABLE II -- INDUSTRIAL STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 024

Outfall Description: storm water runoff from aircraft maintenance, aircraft runway operations & refueling activities**SIC CODE:** 4581(X) Final Limits () Interim Limits **Effective Dates - From: issuance To: expiration**

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS [a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
FLOW (MG)		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	NA	NL	1/6Months	Estimate [b]
pH (S.U.)		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	6.0	9.0	1/6Months	Grab
Total Petroleum Hydrocarbons (mg/l) [c]		(9 VAC 25-252-260 Sector S - Air Transportation) (9 VAC-25-120 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites	NA	NA	NL	1/6Months	Grab
Naphthalene (ug/l) [c]		(9 VAC-25-120 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites	NA	NA	NL	1/6Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following: 1st semi-annual (January 1-June 30); 2nd semi-annual (July 1- December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.B.8., I.B.9. and I.C. for additional storm water sampling and reporting requirements.

[b] Estimate of the total volume of the discharge during the storm event.

[c] See Parts I.B.4. and I.B.5. for quantification levels and reporting requirements, respectively.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts

3. Any deicing activities conducted with in this outfall drainage area shall be monitored and reported in accordance with Special Condition I.B.7.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)

2. Water Quality Standards (9 VAC 25-260 et. seq.)

3. Best Professional Judgment (9 VAC 25-252-260 Sector S - Air Transportation and protection of water quality, (9 VAC-25-120-10 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites, and protection of water quality.

TABLE II - INDUSTRIAL STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 050

Outfall Description: storm water runoff from vehicle maintenance activity areas

SIC CODE: 7538

(X) Final Limits () Interim Limits Effective Dates - From: issuance To: expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS [a]		
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
FLOW (MG)		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	NA	NL	1/6Months	Estimate [b]
pH (S.U.)		(9 VAC 25-252-260 Sector S - Air Transportation)	NA	6.0	9.0	1/6Months	Grab
Total Petroleum Hydrocarbons (mg/l) [c]		(9 VAC 25-252-260 Sector S - Air Transportation) (9 VAC-25-120 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites	NA	NA	NL	1/6Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following: 1st semi-annual (January 1-June 30); 2nd semi-annual (July 1- December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.B.9. and I.C. for additional storm water sampling and reporting requirements.

[b] Estimate of the total volume of the discharge during the storm event.

[c] See Parts I.B.4. and I.B.5. for quantification levels and reporting requirements, respectively.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment (9 VAC 25-252-260 Sector S - Air Transportation)

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TABLE II - INDUSTRIAL STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 057

Outfall Description: storm water runoff from aircraft maintenance and bulk fuel storage activities

SIC CODE: 4581

(X) Final Limits () Interim Limits Effective Dates - From: issuance To: expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS [a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
FLOW (MG)	3	(9 VAC 25-252-260 Sector S - Air Transportation)	NA	NA	NL	1/6Months	Estimate [b]
pH (S.U.)	3	(9 VAC 25-252-260 Sector S - Air Transportation)	NA	6.0	9.0	1/6Months	Grab
Total Petroleum Hydrocarbons (mg/l) [c]	3	(9 VAC 25-252-260 Sector S - Air Transportation) (9 VAC-25-120 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites	NA	NA	NL	1/6Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following: 1st semi-annual (January 1-June 30); 2nd semi-annual (July 1- December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.B.9. and I.C. for additional storm water sampling and reporting requirements.

[b] Estimate of the total volume of the discharge during the storm event.

[c] See Parts I.B.4. and I.B.5. for quantification levels and reporting requirements, respectively.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment (9 VAC 25-252-260 Sector S - Air Transportation, and protection of water quality, (9 VAC-25-120-10 et seq.) General permit Regulation for Discharges from Petroleum Contaminated Sites, and protection of water quality

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TABLE II - INDUSTRIAL STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 571 (internal outfall to 057)

Outfall Description: collected storm water from within the storage tank farm berm areaSIC CODE: 4581(X) Final Limits () Interim Limits **Effective Dates - From: issuance To: expiration**

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
FLOW (MGD)	3	(9 VAC 25-151-280 et seq.) Storm Water General Permit for Discharges Associated with an Industrial Activity	NA	NA	NL	1/6Months	Estimate
pH (S.U.)	3	(9 VAC 25-151-280 et seq.) Storm Water General Permit for Discharges Associated with an Industrial Activity	NA	NL	NL	1/6Months	Grab
Total Petroleum Hydrocarbons (mg/l) [a]	3	(9 VAC-25-120 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites	NA	NA	NL	1/6Months	Grab
Naphthalene (mg/l) [a]	3	(9 VAC-25-120 et seq.) General Permit Regulation for Discharges from Petroleum Contaminated Sites	NA	NA	NL	1/6Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following: 1st semi-annual (January 1-June 30); 2nd semi-annual (July 1- December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.B.4. and I.B.5. for quantification levels and reporting requirements, respectively.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment (9 VAC-25-120-10 et seq. General Permit Regulation for Discharges from Petroleum Contaminated Sites, and protection of water quality

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORINGOUTFALL #: 048Outfall Description: storm water runoff from small arms range facility, parking lots and roadsSIC CODE: 9711

THIS OUTFALL SHALL CONTAIN STORM WATER RUNOFF ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO CHEMICAL MONITORING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THIS OUTFALL.

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL #: 003, 004, 005, 006, 007, 008, 019, 021, 023, 025, 026, 027, 028, 029, 030, 031, 032, 033, 034, 035, 036, 037, 038, 039, 040, 041, 042, 043, 044, 045, 046, 047, 049, 054, 055, 058

Outfall Description: storm water runoff from residential areas, car parking lots, office buildings, paved walking trails, recreation areas, and roads

SIC CODE: 9711

THESE OUTFALLS SHALL CONTAIN STORM WATER RUNOFF NOT ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO MONITORING OR REPORTING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THESE OUTFALLS.

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL #: 009, 011, 012, 013, 014, 015, 016, 017, 018, 020, 022, 051, and 052

Outfall Description: storm water runoff from flight line areas and grassy areas between runways (no aircraft maintenance, no aircraft parking or refueling activities)

SIC CODE: 4581

THESE OUTFALLS SHALL CONTAIN ONLY STORM WATER RUNOFF ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY AND HAVE BEEN DEEMED **SUBSTANTIALLY IDENTICAL** IN NATURE TO OTHER OUTFALLS ADDRESSED IN THIS PERMIT. THESE OUTFALLS SHALL BE REPRESENTED BY SUBSTANTIALLY IDENTICAL OUTFALLS THAT ARE MONITORED ELSEWHERE IN THIS PERMIT. NO CHEMICAL MONITORING OF THE ABOVE LISTED OUTFALLS IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THESE OUTFALLS. SEE PART I.D. FOR STORM WATER REQUIREMENTS THAT APPLY TO THESE DISCHARGES FROM A REGULATED INDUSTRIAL ACTIVITY.

ATTACHMENT 6

EFFLUENT LIMITATIONS/MONITORING
RATIONALE/SUITABLE DATA/
ANTIDEGRADATION/ANTIBACKSLIDING

VPDES Permit No. VA 0083194
Langley Air Force Base, Joint Base Langley-Eustis
Effluent Limitations and Monitoring Rationale

Langley Air Force Base now operates as Langley Air Force Base, Joint Base Langley-Eustis and is located in Hampton, VA. This facility operates as a military air base with industrial activity related to aircraft washing, refueling, de-icing, maintenance and parking, fuel transfer and storage operations. The reissuance of this permit will be similar in nature to the current permit. Most of the regulated and non-regulated areas have not changed nor have the basic operations and activities at the facility however some activities within each outfall area have been eliminated, or will be addressed in a different manner within the permit (Deicing). There are approximately 57 outfalls (one internal outfall to 057 is designated as 571) which convey storm water runoff associated with industrial activity areas and, outfalls that are not associated with industrial activity where no monitoring or reporting is required. All cooling tower flows (including non-contact and blowdown) are conveyed to HRSD with no surface discharge at the facility. Monitoring and reporting as described in special condition language for deicing activities will continue for BOD and TKN as they are good indicators of oxygen demanding pollutants characteristic of deicing/anti-icing activities as recommended in 9 VAC 25-151-260. "Sector S - Air Transportation" and Naphthalene is included for areas involved in refueling and handling of JP-8 jet fuel as recommended in 9 VAC 25-120 et seq "Petroleum Contaminated Sites General Permit Regulation".

Best Professional Judgment based on the following documents was used in development of the permit and fact sheet. Guidance Memo No. 09-2009 "Implementation of General Permit for Storm Water Associated with a Regulated Industrial Activity" 9 VAC 25-151-260, General Permit for Storm Water Associated with a Regulated Industrial Activity. Guidance Memo No. 08-2006 "Implementation Guidance for Reissuance of VPDES General Permit VAG83 - VPDES General Permit Regulation for Discharges From Petroleum Contaminated Sites" 9 VAC 25-120-10 et seq.

Outfalls: 001, 002: The activities conducted within these outfall drainage areas are typical of a military air base. Various aircraft operation activities such as aircraft maintenance, fuel transfer and flight line essentials are carried out on runways and surrounding tarmac. Historically, deicing activities have been very infrequent; therefore any monitoring associated with deicing will be addressed in a special condition only. Storm water runoff from aircraft maintenance, fuel transfer, and aircraft runway from the above mentioned areas contribute to the potential pollution that may be present at these outfalls. Any reference to deicing will be removed from the Part I A. effluent page and is addressed in a special condition. Monitoring and reporting of a deicing event will be in accordance with special condition requirements, Part I.B.7.

Flow (MG) No limit, however monitoring and reporting is required 1/6 months by an estimate. An estimate is the total volume of the discharge taken during a storm event. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

pH (SU) 6.0 min – 9.0 max, 1/6months by a grab sample. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

TPH(mg/l) No limit, 1/6Months monitoring by a grab sample. BPJ based on potential sources of petroleum contaminates in JP-8 and the numerous activities conducted within this drainage area involving petroleum based fuels. Collection of data will allow evaluation of possible impact of the discharge on the receiving stream and determination of compliance with the permit. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S – Air Transportation).

Outfalls: 010, 024*, 053, 056 (storm water runoff from aircraft maintenance, aircraft runway operations and refueling activities).

Flow (MG) No limit, however monitoring and reporting is required 1/6 months by an estimate. An estimate is the total volume of the discharge taken during a storm event. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

pH (SU) 6.0 min – 9.0 max, 1/6months by a grab sample. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

TPH(mg/l) No limit, however monitoring and reporting is required 1/6months by a grab sample. BPJ based on Petroleum Contaminated Sites General Permit Regulation 9 VAC 25-120-10 et seq, Storm water Associated with an Industrial Activity 9 VAC 25-151-260. "Sector S - Air Transportation" and protection of water quality.

Naphthalene(ug/l) No limit, however monitoring and reporting is required 1/6months by a grab sample. BPJ based on 9 VAC 25-120-10 et seq "Petroleum Contaminated Sites General Permit Regulation" and protection of water quality.

- Special condition language for monitoring and reporting all samples for outfall 024.

Outfall: 048 (storm water runoff from vegetative area of small arms range facility, parking lot and roads)

THIS OUTFALL SHALL CONTAIN STORM WATER RUNOFF ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO MONITORING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THIS OUTFALL

Outfall: 050: Storm water runoff from vehicle maintenance activity area.

Flow (MG) No limit, however monitoring and reporting is required 1/6 months by an estimate. An estimate is the total volume of the discharge taken during a storm event. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

pH (SU) 6.0 min – 9.0 max, 1/6months by a grab sample. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

TPH(mg/l) No limit, however monitoring and reporting is required 1/6months by a grab sample. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

Outfall: 057: (storm water runoff from aircraft maintenance and bulk fuel storage activities (no refueling activities))

Flow (MG) No limit, however monitoring and reporting is required 1/6 months by an estimate. An estimate is the total volume of the discharge taken during a storm event. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

pH (SU)	6.0 min – 9.0 max, 1/6months by a grab sample. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).
TPH(mg/l)	No limit, however monitoring and reporting is required 1/6months by a grab sample. BPJ based on Storm water Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).

Outfall: 571: (internal outfall to 057) (collected storm water from within the storage tank farm berm area)

Flow (MGD)	No limit, however monitoring and reporting is required 1/6 months by an estimate. An estimate is the total volume of the discharge taken during a storm event. BPJ based on Stormwater Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).
pH (SU)	6.0 min – 9.0 max, 1/6months by a grab sample. BPJ based on Stormwater Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).
TPH(mg/l)	No limit, however monitoring and reporting is required 1/6months by a grab sample. BPJ based on Stormwater Associated with an Industrial Activity (9 VAC 25-151-260. Sector S - Air Transportation).
Naphthalene(ug/l)	No limit, however monitoring and reporting is required 1/6months by a grab sample. BPJ based on Petroleum Contaminated Sites General Permit Regulation 9 VAC 25-120-10 et seq and protection of water quality.

Outfalls: 003,004,005,006,007,008,019, 021,023,025,026,027,028,029,030,031,032, 033,034,035,036,037,038,039,040,041,042,043,044,045,046,047,049,054,055,058

(storm water runoff from residential areas, parking lots, office buildings, paved walking trails, recreation areas and vehicular traffic road ways)

THESE OUTFALLS SHALL CONTAIN STORM WATER RUNOFF NOT ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO MONITORING OR REPORTING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WATER FROM THESE OUTFALLS.

Outfalls: 009,011,012,013,014,015,016,017,018,020,022,051,052

(storm water runoff from flight line areas, taxiways, runway operations and grassy areas between runways associated with industrial activity)

THESE OUTFALLS SHALL CONTAIN ONLY STORM WATER RUNOFF ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY AND HAVE BEEN DEEMED **SUBSTANTIALLY IDENTICAL** IN NATURE TO OTHER OUTFALLS ADDRESSED IN THIS PERMIT. THESE OUTFALLS SHALL BE REPRESENTED BY SUBSTANTIALLY IDENTICAL OUTFALLS THAT ARE MONITORED ELSEWHERE IN THIS PERMIT. NO CHEMICAL MONITORING OF THE ABOVE LISTED OUTFALLS IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THESE OUTFALLS. SEE PART I.C. FOR STORM WATER REQUIREMENTS THAT APPLY TO THESE DISCHARGES FROM A REGULATED INDUSTRIAL ACTIVITY.

CALCULATION OF QUANTIFICATION LEVELS

QL for naphthalene was calculated in accordance with QL Advice Memo dated October 1999. For this facility, .4 x effluent limitation was used as the discharge scenario is considered acute.

$$\text{Naphthalene} = .4 \times 62 = 24.8 \text{ ug/l (significant figures} = 25 \text{ ug/l)}$$

QL's for BOD, and TKN were included in accordance with a memo written by Dale Phillips dated December 4, 2000 "Advice for Quantification Limits for Conventional Pollutants"

All values in ug/l unless otherwise noted.

[illegible]

PESTICIDES/PCB'S

[illegible]

[illegible]

BASE NEUTRAL EXTRACTABLES

[illegible]

All values in ug/l unless otherwise noted.

[illegible]

All values in ug/l unless otherwise noted.

[illegible]

MISCELLANEOUS

[illegible]

* -- The expected value is calculated by the WLA computer model.

*** -- See ammonia tables in the Water Quality Standards

ATTACHMENT 7

SPECIAL CONDITIONS RATIONALE

7-1

VPDES PERMIT PROGRAM
LIST OF SPECIAL CONDITIONS RATIONALE

B. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

1. Permit Reopeners

1.a. Nutrient Enriched Waters Reopener

Rationale: The Policy for Nutrient Enriched Waters, 9 VAC 25-40 -10 allows reopening of permits for discharges into waters designated as nutrient enriched if total phosphorus and total nitrogen in a discharge potentially exceed specified concentrations. The policy also anticipates that future total phosphorus and total nitrogen limits may be needed.

1.b. Total Maximum Daily Load (TMDL) Reopener

Rationale: For specified waters, Section 303(d) of the Clean Water Act requires the development of total maximum daily loads necessary to achieve the applicable water quality standards. The TMDL must take into account seasonal variations and a margin of safety. In addition, Section 62.1-44.19:7 of the State Water Control Law requires the development and implementation of plans to address impaired waters, including TMDLs. This condition allows for the permit to be either modified or, alternatively, revoked and reissued to incorporate the requirements of a TMDL once it is developed. In addition, the reopener recognizes that, in according to Section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan or other wasteload allocation prepared under Section 303 of the Act.

2. Notification Levels

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-200 and 40 CFR 122.42 (a) require notification of the discharge of certain parameters at or above specific concentrations for existing manufacturing, commercial mining and silvicultural discharges.

3. New Discharges Permitted from Application Form 2E

Rationale: The permit limitations are based on assumed effluent quality characteristics when application Form 2E is used. These assumptions (and the permit basis) can only be validated with actual effluent data. The submission of actual data is required in the application form instructions.

4. Quantification Levels Under Part I.A.

Rationale: States are authorized to establish monitoring methods and procedures to compile and analyze data on water quality, as per 40 CFR part 130, Water Quality Planning and Management, subpart 130.4. Section b. of the special condition defines QL and is included per BPJ to clarify the difference between QL and MDL.

5. Compliance Reporting Under Part I.A.

Rationale: Defines reporting requirements for toxic parameters and some conventional parameters with quantification levels to ensure consistent, accurate reporting on submitted reports.

6. Materials Handling and Storage

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-50 A., prohibits the discharge of any wastes into State waters unless authorized by permit. The State Water Control Law, Sec. 62.1-44.18:2, authorizes the Board to prohibit any waste discharge which would threaten public health or safety, interfere with or be incompatible with treatment works or water use. Section 301 of the Clean Water Act prohibits the discharge of any pollutant unless it complies with specific sections of the Act.

7. Deicing Event Discharge

Rationale: Best Professional Judgment determination based on Virginia's General Regulation for Storm water Associated with Industrial Activity (9 VAC 25-252-20 et seq.) and EPA's Multi-sector Permit.

8. Storm Water Sample Collection Point for Outfall 024

Rationale: Best Professional Judgment determination for monitoring and reporting representative data

9. Documentation of Rain Events/Tidal Conditions for Semi-Annually Monitoring Period

Rationale: Requires documentation of rain events and tidal conditions during the monitoring period for the collection of a representative sample.

C. STORM WATER MANAGEMENT CONDITIONS

1. Sampling Methodology for Specific Outfalls 001, 002, 024, 053, 056

Rationale: Defines methodology for collecting representative effluent samples in conformance with applicable regulations.

2. Storm Water Management Evaluation

Rationale: The Clean Water Act 402(p) (2) (B) requires permits for storm water discharges associated with industrial activity. VPDES permits for storm water discharges must establish BAT/BCT requirements in accordance with 402(p) (3) of the Act. The Storm Water Pollution Prevention Plan is the vehicle proposed by EPA in the final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity (Federal Register Sept 9, 1992) to meet the requirements of the Act. Additionally, the VPDES Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44 (k) allow BMPs for the control of toxic pollutants listed in Section 307 (a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law.

Finally, the EPA produced a document dated August 1, 1996, entitled "Interim Permitting Approach for Water Quality- Effluent Limitations in Storm Water Permits". This document indicated that an interim approach to limiting storm water could be through the use of best management practices rather than numerical limits. EPA pointed out that Section 502 of the Clean Water Act (CWA) defined "effluent limitation" to mean "any restriction on quantities, rates, and concentrations of constituents discharged from point sources. The CWA does not say that effluent limitations need be numeric." The use of BMPs falls in line with the Clean Water Act which notes the need to control these discharges to the maximum extent necessary to mitigate impacts on water quality.

3. General Storm Water Conditions

a. Sample Type

Rationale: This stipulates the proper sampling methodology for qualifying rain events from regulated storm water outfalls. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

b. Recording of Results

Rationale: This sets forth the information which must be recorded and reported for each storm event sampling (ie. date and duration event, rainfall measurement, and duration between qualifying events). It also requires the maintenance of daily rainfall logs which are to be reported. This condition is carried over from the previous storm water pollution prevention plan requirements contained in the EPA storm water baseline industrial general permit.

c. Sampling Waiver

Rationale: This condition allows the permittee to collect substitute samples of qualifying storm events in the event of adverse climatic conditions. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

d. Representative Discharge

Rationale: This condition allows the permittee to submit the results of sampling from one outfall as representative of other similar outfalls, provided the permittee can demonstrate that the outfalls are substantially identical. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

e. Quarterly Visual Examination of Storm Water Quality

Rationale: This condition requires that visual examinations of storm water outfalls take place at a specified frequency and sets forth what information needs to be checked and documented. These examinations assist with the evaluation of the pollution prevention plan by providing a simple, low cost means of assessing the quality of storm water discharge with immediate feedback. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

f. Releases of Hazardous Substances or Oil in Excess of Reportable Quantities

Rationale: This condition requires that the discharge of hazardous substances or oil from a facility be eliminated or minimized in accordance with the facility's storm water pollution prevention plan. If there is a discharge of a material in excess of a reportable quantity, it establishes the reporting requirements in accordance with state laws and federal regulations. In addition, the pollution prevention plan for the facility must be reviewed and revised as necessary to prevent a reoccurrence of the spill. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

g. Allowable Non-Storm Water Discharges

Rationale: The listed allowable non-storm water discharges are the same as those allowed by the EPA in their multi-sector general permit, and are the same non-storm water discharges allowed under the Virginia General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity, 9 VAC 25-151-10 et seq. Allowing the same non-storm water discharges in VPDES individual permits provides consistency with other storm water permits for industrial facilities. The non-storm water discharges must meet the conditions in the permit.

4. Storm Water Pollution Prevention Plan

Rationale: The Clean Water Act 402(p) (2) (B) requires permits for storm water discharges associated with industrial activity. VPDES permits for storm water discharges must establish BAT/BCT requirements in accordance with 402(p) (3) of the Act. The Storm Water Pollution Prevention Plan is the vehicle proposed by EPA in the final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity (Federal Register Sept 9, 1992) to meet the requirements of the Act. Additionally, the VPDES Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44 (k) allow BMPs for the control of toxic pollutants listed in Section 307 (a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law.

1-5

STANDARD SPECIAL CONDITION CHANGE SHEET

This sheet is being used for documenting a new Standard Special Condition (~~Deicing at NAS Oceana~~). Once approved, the change will be applicable to this permit only. No changes to Standard Special Conditions are allowed without completing this change sheet.

Permit No.: VA0083194

Facility: US Langley Air Force Base Joint Base Langley-Eustis

Date: August 23, 2010

Permit Writer: Debra L. Thompson

New Special Condition: Monitoring and reporting requirements for deicing on aircraft runways.

Change Requested: This condition will be modeled after the "Hydrostatic Testing" condition that was created for more streamline monitoring and reporting of discharges that occur very infrequently due to the circumstances necessary for a qualifying discharge.

Rationale For Change: Deicing activities have been and will probably continue to be so very infrequent in this region. Submittal of a DMR and reporting "NO FLOW" for a 5 year permit has provided little to no useful information and caused unnecessary tracking and filing.

Effect of the Change: Monitoring and reporting shall be done in accordance with special condition language and not on a DMR reporting schedule as previously required by Part I.A. of the permit.

Could other permits be affected by this change; if so, which permit(s) (i.e.-other facilities under the same owner)? Yes, possibly other air transportation facilities.

Water Permit Manager Concurrence:

Date: 10/14/10

Admin Notified and Copied with Change:

Date:

Routing: PW > WPM > PW (include in Fact Sheet) > Admin

This sheet must be included as part of the Fact Sheet and copied to the Admin group upon concurrence by the Water Permit Manager. If necessary, attach a copy of the original Special Condition and the proposed changed Special Condition to this sheet.

7-6

STANDARD SPECIAL CONDITION CHANGE SHEET

This sheet is to be used for documenting a change to a Standard Special Condition. Once approved, the change will be applicable to this permit only. No changes to Standard Special Conditions are allowed without completing this change sheet.

Permit No.: VA0083194

Facility: US Langley Air Force Base Joint Base Langley-Eustis

Date: August 23, 2010

Permit Writer: Debra L. Thompson *Debra L. Thompson*

Special Condition Affected: Monitoring and reporting tidally influenced outfalls

Change Requested: Special condition language allowing sample collection point flexibility dependant upon the timing of the storm event and the tide cycle. A salinity/conductivity study was performed by the facility in support of this proposal. The salinity of the outfall is normally 14 ppt. The salinity of the sample collected during rain events ranged from 0.3ppy to 7ppt, when sampled +/- 2 hour window of low tide. The average is 4ppt. Optimally, best time to sample would be window of 1-1.5 hours after low tide. Therefore the sample shall be collected at Outfall 024(A) if it can be pulled from 2 hours after low tide as determined at Messick Point. If sample must be pulled from 2 hours prior to low tide up until 1 hour after low tide, the samples shall be pulled from Outfall 024(B). Permit special condition is as follows:

8. Storm Water Sample Collection Point for Outfall 024

In order to minimize tidal influence, the permittee shall ensure collection of a representative sample from outfall 024 by implementing the following sampling collection protocol:


- a. When a discharge from a storm event occurs from 1 to 2 hours AFTER absolute low tide, a grab sample shall be collected at the heart (middle) of the footbridge, connecting Building 330 to the adjacent parking lot west (24A).
- b. When a discharge from a storm event occurs from 2 hours BEFORE absolute low tide through 1 hour AFTER absolute low tide a grab sample shall be collected from the Flight Line side of the drainage ditch where Flight Line Drive intersects the parking lot north of Building 330 (24B).

The analytical data from the above monitoring, regardless of the physical location, shall be reported as outfall 024 on the DMR.

Rationale For Change: Representative outfall is critical for useful data collection and data comparison.

Effect of the Change: Specific guidelines for sample collection will yield good, viable and consistent data allowing comparison/evaluation over a permit term.

Could other permits be affected by this change; if so, which permit(s) (i.e.-other facilities under the same owner)?

 Water Permit Manager Concurrence:

Date: 10/14/10

Admin Notified and Copied with Change:

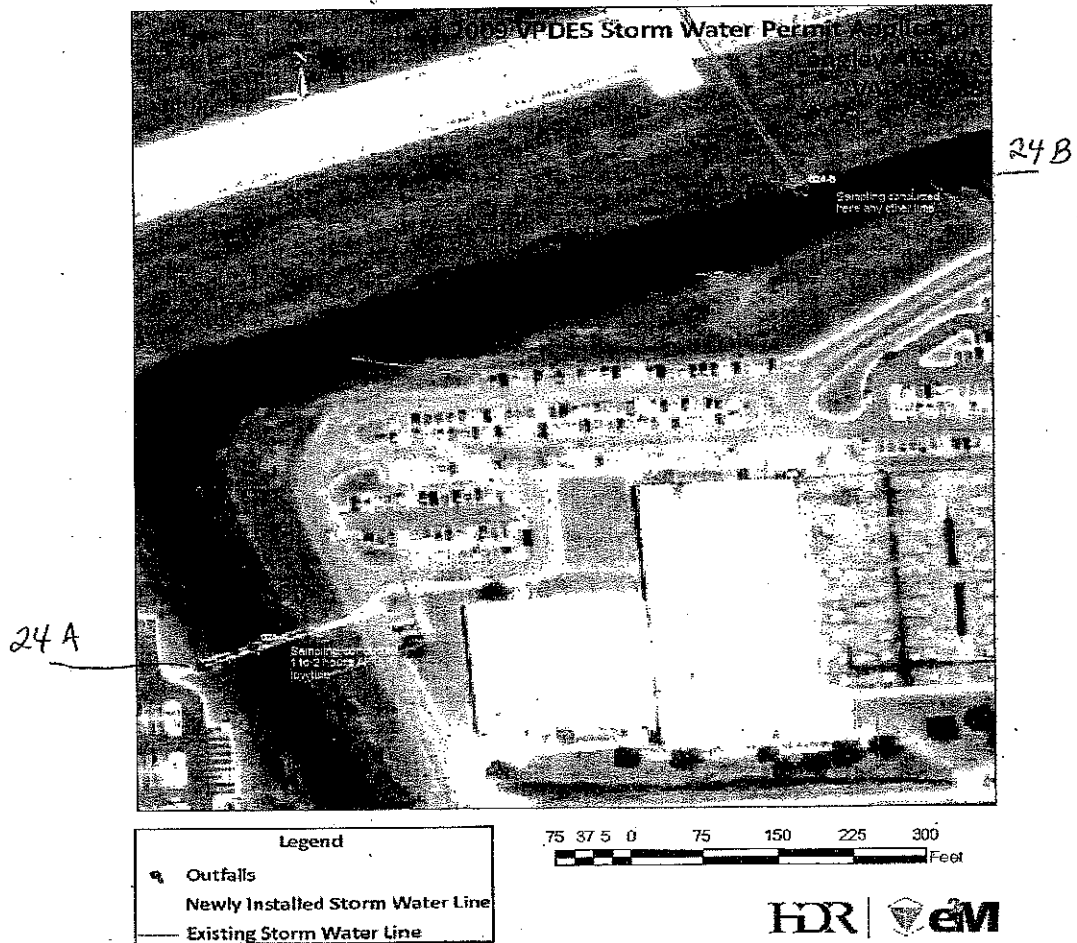
Date:

Routing: PW > WPM > PW (include in Fact Sheet) > Admin

This sheet must be included as part of the Fact Sheet and copied to the Admin group upon concurrence by the Water Permit Manager. If necessary, attach a copy of the original Special Condition and the proposed changed Special Condition to this sheet.

7-7

Langley Air Force Base
Outfall 024A & 024B, Proposed Sample Locations



ATTACHMENT 8

TOXICS MONITORING/TOXICS REDUCTION/
WET LIMIT RATIONALE

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard

Virginia Beach, VA 23462

SUBJECT: TMP language for 633d Air Base Wing (VA0083194)

TO: Debbie Thompson

FROM: Deanna Austin *DA*

DATE: 9/2/10

COPIES: TRO File (PPP #643)

633d Air Base Wing formally named US-Langley Air Force Base is located in Hampton, VA. Activities at the facility include aircraft washing, refueling, maintenance and parking, fuel transfer and storage. There are many permitted outfalls, however, only select outfalls have been monitored for toxicity during the current permit term. The following table shows the outfalls monitored during the current permit term and the additional outfall proposed to be monitored in the reissued permit. The new outfall is highlighted.

Outfall	Activity	Discharge Location
001	Aircraft maintenance, Aircraft runway operations with refueling	SW Branch of Back River
002	Aircraft runway operations with refueling	SW Branch of Back River
010	Aircraft runway operations, vehicle maintenance	NW Branch of Back River
024	Aircraft runway operations with refueling, aircraft maintenance, deicing material storage, vehicle refueling, recycling material storage, HZ waste storage	Tide Mill Creek
050	Vehicle Maintenance	Ditch to Tide Mill Creek
057	Aircraft, re-fueling truck and bulk fuel storage	SW Branch of Back River

The following table shows the data collected during the current permit term.

OUTFALL	DESCRIPT	SPECIES	SAMPLEDT	LC50	SURVIVAL	TU	TESTCOM	LAB
001	1st Annual Storm Water	M.b.	1/30/05	100	100	1		JR Reed
001	2nd Annual Storm Water	M.b.	1/2/06	100	100	1		JR Reed
001	3rd Annual Storm Water	M.b.	3/2/07	100	100	1		JR Reed
001	4th Annual Storm Water	M.b.	1/17/08	100	100	1		JR Reed
001	5th Annual Storm Water	M.b.	4/6/09	100	100	1		JR Reed

8-2

002	1st Annual Storm Water	M.b.	1/30/05	100	100	1	JR Reed
002	2nd Annual Storm Water	M.b.	1/2/06	100	100	1	JR Reed
002	3rd Annual Storm Water	M.b.	3/2/07	100	100	1	JR Reed
002	4th Annual Storm Water	M.b.	2/13/08	100	100	1	JR Reed
002	5th Annual Storm Water	M.b.	4/14/09	100	100	1	JR Reed
010	1st Annual Storm Water	M.b.	1/30/05	100	100	1	JR Reed
010	2nd Annual Storm Water	M.b.	1/2/06	100	95	1	JR Reed
010	3rd Annual Storm Water	M.b.	3/2/07	100	100	1	JR Reed
010	4th Annual Storm Water	M.b.	1/17/08	100	100	1	JR Reed
010	5th Annual Storm Water	M.b.	4/6/09	100	100	1	JR Reed
024	1st Annual Storm Water	M.b.	7/29/05	100	100	1	JR Reed
024	2nd Annual Storm Water	M.b.	1/2/06	100	100	1	JR Reed
024	3rd Annual Storm Water	M.b.	3/2/07	100	100	1	JR Reed
024	4th Annual Storm Water	M.b.	1/17/08	100	100	1	Salinity 17ppt- Sample not valid JR Reed
024	5th Annual Storm Water	M.b.	4/6/09	100	100	1	JR Reed
057	1st Annual Storm Water	M.b.	7/29/05	100	100	1	JR Reed
057	2nd Annual Storm Water	M.b.	1/18/06	100	100	1	JR Reed
057	3rd Annual Storm Water	M.b.	2/2/07	100	100	1	JR Reed
057	4th Annual Storm Water	M.b.	1/17/08	100	100	1	JR Reed
057	5th Annual Storm Water	M.b.	5/15/09	100	100	1	JR Reed

Outfall 001 and 002 are being removed from the toxicity screening section. As these outfalls are most likely to be associated with deicing activity, they may be monitored for toxicity when deicing activities occur. The following condition will be added to the reissued permit. This condition is being added to all permits with deicing activities, as the permits are reissued.

Acute toxicity tests shall be conducted with the species Americamysis bahia and Cyprinodon variegatus using 48-hour static acute tests. All toxicity test conditions and reporting requirements under section E. 2. of the permit shall be followed. The permittee shall report the results and supply one complete copy of the toxicity test report with the DMR. A complete report must contain a copy of all laboratory benchsheets, certificates of analysis, and all chains of custody. All data shall be submitted by the 10th of the month following sampling.

Outfall 050 was added to the toxicity screening based upon the activity at this location and data collected during the permit term and for the reissuance application.

The bold language above and the following permit language are recommended for the reissued 633d Air Base Wing permit VA0083194.

F. STORM WATER MANAGEMENT CONDITIONS**1. Sampling Methodology for Specific Outfalls**

The following shall be required when obtaining samples required by Part I.A. of this permit:

- a. At the time of sampling, the permittee shall ensure that the effects of tidal influences are kept to an absolute minimum. This can be achieved by:

- (1) Sampling at low tide and/or
- (2) Sampling at a representative point which has been demonstrated to be free of tidal influences

- b. In the event that sampling of an outfall is not possible due to the absence of effluent flow during a particular testing period, the permittee shall provide written notification to DEQ Tidewater Regional Office with the DMR for the month following the period in which samples were to be collected.

2. Toxicity Screening

- a. The permittee shall conduct **annual acute toxicity tests** on outfalls 010, 024, and 057 using grab samples of stormwater effluent. These acute screening tests shall be 48-hour static tests using Americamysis bahia.

The permittee shall conduct **annual acute toxicity tests** on outfall 050 using grab samples of stormwater effluent. These acute screening tests shall be 48-hour static tests using Americamysis bahia and Cyprinodon variegatus.

The tests shall be conducted on a calendar year basis with one copy of all **results and all supporting information results and all supporting information** submitted by the 10th of the month following the sampling date but no later than January 10th of each year. Attachment A shall be submitted with the results.

These acute tests shall be performed with a minimum of 5 dilutions, derived geometrically, for the calculation of a valid LC₅₀. Express the results as TU_a (Acute Toxic Units) by dividing 100/ LC₅₀ for reporting.

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3

If any of the toxicity screening tests are invalidated, an additional test shall be conducted within thirty (30) days of notification. If there is no discharge during this 30-day period, a sample must be taken during the first qualifying discharge.

- b. Sampling methodology for the noted outfalls shall be in accordance with Part I.A. and Part I.F.2.a. of this permit. **Toxicity sampling shall be conducted at the same time as the sampling for Part I.A. for each outfall.**
- c. The effectiveness of the SWP3 will be evaluated via the required monitoring listed in Part I.F.2.a. of this permit for the regulated storm water outfalls. Monitoring results with an LC_{50} of less than 100% effluent, will not indicate unacceptable values. However, those results will justify the need to reexamine the effectiveness of the SWP3 and any best management practices (BMPs) being utilized for the affected outfalls. In addition, the permittee shall amend the SWP3 whenever there is a change in the facility or its operation which materially increases the potential for activities to result in a discharge of significant amounts of pollutants.

Within 30 days of a LC_{50} that is less than 100% effluent, the permittee shall submit to the DEQ Tidewater Regional Office, a report which includes the steps taken to modify either the Plan or any BMPs based on the monitoring data.

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ATTACHMENT A

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
TMP SUBMITTAL COVER SHEET

This form shall be completed for, and submitted with, each report of toxicity testing.

VPDES PERMIT NUMBER: VA0083194FACILITY NAME: 633rd Air Base WingFACILITY LOCATION: 37 Sweeney Blvd, Hampton, VA 23665

THIS REPORT SHALL CONTAIN THE FOLLOWING ITEMS	
	COMPLETED CHAIN OF SAMPLE CUSTODY
	CERTIFICATE OF ANALYSIS (ES)
	COMPLETE REPORT OF TOXICITY TESTING

OUTFALL NUMBER (circle one): 001 002 010 024 050 057

REPORTING PERIOD (ex: 2011 Annual): _____

SAMPLE TYPE (circle one): Stormwater DeicingWASTEWATER SOURCE(S) (if process wastewater, provide a brief source description):

SAMPLE AND STORM EVENT INFORMATION (if applicable):

Sample Date and Time of Collection: _____

Time discharge began: _____

Storm event measurement (inches): _____

Time between sampling and
last measurable storm event (hours): _____

ADDITIONAL INFORMATION:

If this sample is a **make-up** sample or a **retest**, indicate which category of test and the reporting period this submittal applies to:

Report Type: (i.e., makeup, retest, etc.) _____

Reporting Period: _____

If the required TMP sample(s) were not collected provide a reason/rationale:

CERTIFICATION:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. §1001 and 33 U.S.C. §1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

Signature, printed name and title of Principal Officer or Authorized Agent / Date

ATTACHMENT 9

MATERIAL STORED

VADEQ FORM 2F, Table 2F-3

Industrial Activity Buildings and Associated Materials and Material Handling Practices, By Outfall

633d Air Base Wing, Hampton, VA

Outfall Drainage Area	Associated Industrial Activities (SIC Codes in parentheses)	Buildings or Areas of Industrial Activity
001	Aircraft Maintenance (4581) Aircraft Runway Operations with Refueling (4581)	351, 361 ¹ , 363, 372, 373, 374 (Aircraft Wash Rack), Flight Line Apron, Runway, Taxiways
002	Aircraft Runway Operations with Refueling (4581)	367, Tank 760.4 near Bldg. 760, Stone Connex Box near Bldg. 760, 763, Flight Line Apron, Runway, Taxiways
005	Aircraft Maintenance (4581)	781, 782
007	Wind Tunnel, NASA Outfall 010 Target Demo	No building or industrial activity currently associated with this outfall; Langley AFB requests this be removed to non-industrial outfalls designation
009 ¹	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways
010	Aircraft Runway Operations (No Refueling) (4581) Vehicle Maintenance (4581)	743, R-11 Refueling Plaza and Parking Area, R-11 Wash Rack, 747, Taxiway
011	Aircraft Runway Operations with refueling (4581)	Flight Line Apron, Runway, Taxiways
012 ²	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways
013/014 ²	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways
015 ²	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways
016 ²	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways

VADEQ FORM 2F, Table 2F-3, Continued

Outfall Drainage Area	Associated Industrial Activities (SIC Codes in parentheses)	Buildings or Areas of Industrial Activity
017/018	Aircraft Runway Operations (No Refueling) (4581) Aircraft Engine Testing (4581)	889, 891, Runway, Taxiways
020 ²	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways
022 ²	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways
024	Aircraft Runway Operations with Refueling (4581) Aircraft Maintenance (4581) Deicing Material Storage (4581) Vehicle Refueling (5541) Recycling Material Storage (5093) Hazardous Waste Storage (HZ)	321, 328, Scrap Metal Yard (Near Bldg. 330), 335, 342, 1362, Flight Line Apron, Runway, Taxiways
050	Vehicle Maintenance (7538)	27, 28 (Vehicle Wash Rack), 30
051 ²	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways ²
052 ²	Aircraft Runway Operations (No Refueling) (4581)	Runway, Taxiways

¹ = No industrial materials or processes were observed at this location during the 2008 CSCE; however, it is expected industrial materials and processes will be observed at this location in the future.

² = No industrial materials were stored in this drainage area during the 2008 CSCE; however, industrial processes associated with aircraft runways and taxiways occur in this drainage area.

ATTACHMENT 10

RECEIVING WATERS INFO./
TIER DETERMINATION/STORET DATA/
STREAM MODELING

TIER DETERMINATIONS for Outfalls

OUTFALL LOCATIONS WITH

Outfall Number Designation	Coordinates		Receiving Waters		Tier Attachment
	Latitude	Longitude			
001	37° 04' 37" N	76° 21' 22" W	Brown's Creek; tributary to Back River - Southwest Branch	Six 36-inch reinforced concrete pipes (RCPs) and two 24-inch RCPs that discharge from a concrete headwall into a large, rip-rap granite rock lined drainage ditch (Brown's Creek), flows under Sweeney and Nearly Blvd., and into Back River. This outfall is subject to tidal influence.	Tier 1 Attachment 1
002	37° 04' 35" N	76° 21' 17" W	Brown's Creek, tributary to Back River - Southwest Branch	Six 30-inch RCPs that discharge from a concrete headwall into the same drainage ditch (Brown's Creek) as Outfall 001. This outfall is subject to tidal influence.	Tier 1 Attachment 1
003	37° 04' 36" N	76° 20' 40" W	Back River - Southwest Branch	A 24-inch RCP that runs parallel to Bowen Street and discharges directly into Back River from the sea wall that protects the officer residential area. This outfall is subject to tidal influence.	Tier 1 Attachment 1
004	37° 04' 45" N	76° 20' 32" W	Back River - Southwest Branch	A 24-inch Terra-Cotta Pipe (TCP) that runs parallel to Plumb Street and discharges from a seawall into Back River at the base Marina. This outfall is subject to tidal influence.	Tier 1 Attachment 1
005	37° 04' 50" N	76° 20' 26" W	Back River - Southwest Branch	Two 24-inch RCPs that run parallel to Douglas Street and discharge directly into Back River at a point along the CE Grounds Maintenance Storage Area river front. This outfall is subject to tidal influence.	Tier 1 Attachment 1
006	37° 04' 52" N	76° 20' 28" W	Back River - Southwest Branch	A 24-inch RCP that discharges directly into Back River at a point directly northeast of the CE Grounds Maintenance Building. The outlet for this pipe	Tier 1 Attachment 1

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	Industrial Outfall
	Latitude	Longitude			
006 Contd.				is completely submerged under river water and sediment during low tide. Consequently, storm water flow from this outfall is severely restricted, meaning that a representative sample is pulled upstream.	
007	37° 05' 00" N	76° 20' 25" W	Back River - Southwest Branch	A 30-inch RCP that runs parallel to Andrews Street and discharges directly into Back River at the end of the NASA Wind Tunnel. This outfall is subject to tidal influence.	Tier 1 Attachment 1
008	37° 05' 16" N	76° 20' 19" W	Back River - Southwest Branch	A 24-inch RCP with a tidal duckbill in place to prevent tidal influence that is located just south of Building 734. The area is very irregular and is filled with granite rocks to prevent tidal erosion. This outfall discharges directly into Back River.	Tier 1 Attachment 3
009	37° 05' 24" N 37° 05' 23" N	76° 20' 22" W 76° 20' 26" W	Back River - Northwest Branch	A 24-inch RCP road culvert and a 15-inch RCP road culvert located northwest of the former Mile Long Building that discharges into a grass-lined drainage ditch draining directly into Back River. Erosion is present near the concrete headwall.	Tier 1 Attachment 3
010	37° 05' 29" N	76° 20' 41" W	Back River - Northwest Branch	A 15-inch RCP located northwest of the former Mile Long Building that discharges directly into Back River. This outfall shares a similar discharge area to that of Outfall 011 and is subject to tidal influence.	Tier 1 Attachment 1
011	37° 05' 29" N	76° 20' 41" W	Back River - Northwest Branch	A 30-inch RCP with a tidal duckbill in place to prevent tidal influence located northwest of the former Mile Long Building. The surrounding area is filled with granite rocks to prevent tidal erosion. This outfall shares a	Tier 1 Attachment 1

Attachment 6-2

(2)

10-3

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
011 Cautel				016, and 019 and discharges directly into Back River. This outfall is subject to tidal influence.	Tier 1 Attachment 1
019	37° 05' 34" N	76° 20' 49" W	Back River - Northwest Branch	A 30-inch RCP located north of the former LTA swimming pool (Building 902). This outfall shares a similar discharge area to that of Outfalls 015, 016, and 017/018 and discharges directly into Back River. This outfall is subject to tidal influence.	Tier 1 Attachment 1
020	37° 05' 44" N	76° 21' 04" W	Back River - Northwest Branch	A 15-inch RCP and a 24-inch RCP that discharge into a 1-foot deep by 5-foot wide drainage ditch, which discharges directly into the Back River. The pipes and drainage ditch are located just north of the Non-Commissioned Officers Club.	Tier 1 Attachment 1
021	37° 05' 59" N	76° 21' 18" W	Back River - Northwest Branch	A 15-inch concrete pipe that discharges into an irregular drainage ditch filled with heavy vegetation and debris. The drainage ditch discharges to a marshy area located along the northwest branch of the Back River, east of the Mobile Radar Building Area.	Tier 1 Attachment 1
022	37° 05' 56" N	76° 21' 35" W	Tabb Creek	This outfall is a 24-inch terra cotta pipe that extends into the tidal marsh. It is partially buried by marsh sediments, is broken in several places, and can only be seen at low tide.	Tier 1 Attachment 2

Attachment 6-3

10-4



Attachment 6-4

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
				similar discharge area to that of Outfall 010 and discharges directly into Back River.	
012	37° 05' 29" N	76° 20' 42" W	Back River - Northwest Branch	A 33-inch RCP that discharges from a concrete headwall located northwest of the former Mile Long Building. This outfall is subject to tidal influence and discharges directly into Back River. Severe erosion is present near the concrete headwall.	Tier 1 Attachment 3
013/014	37° 05' 29" N	76° 20' 43" W	Back River - Northwest Branch	Two 30-inch RCPs located northwest of the former Mile Long Building that discharge directly into Back River. These outfalls are subject to tidal influence.	Tier 1 Attachment 3
015	37° 05' 34" N	76° 20' 48" W	Back River - Northwest Branch	A 30-inch RCP with a tidal duckbill to prevent tidal influence located north of the former LTA swimming pool (Building 902). This outfall shares a similar discharge area to that of Outfalls 016, 017/018, and 019 and discharges directly into Back River.	Tier 1 Attachment 3
016	37° 05' 34" N	76° 20' 49" W	Back River - Northwest Branch	A 30-inch RCP located north of the former LTA swimming pool (Building 902). This outfall shares a similar discharge area to that of Outfalls 015, 017/018, and 019 and discharges directly into Back River. This outfall is subject to tidal influence.	Tier 1 Attachment 3
017/018	37° 05' 34" N	76° 20' 49" W	Back River - Northwest Branch	A 30-inch RCP located north of the former LTA swimming pool (Building 902). This outfall shares a similar discharge area to that of Outfalls 015,	Tier 1 Attachment 3

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
023	37° 05' 33" N	76° 22' 13" W	UT-60 Tabb Creek	Drain valve for secondary containment curbing located near the southern corner of the Entomology Equipment Staging Shed (Building 1309). The outfall discharges to a grass-lined ditch, which discharges into a larger drainage ditch leading into the headwaters of Tide Mill Creek.	Tier 1 Attachment 4
024	37° 04' 33" N	76° 22' 29" W	Tide Mill Creek	Outfall 024 is located at the point where Tide Mill Creek passes through a culvert under Sweeney Boulevard. This outfall is located due west of Base Supply. The pipes are subject to tidal influence. Drainage Area 024 covers all of the land draining to Tide Mill Creek upstream of this point. This outfall is subject to tidal influence.	Tier 1 Attachment 4
024-1	37° 04' 36.5" N	76° 21' 57" W	Tide Mill Creek	Outfall 024-1 is a concrete pipe set in a headwall at the head of Tides Mill Creek. This outfall is subject to tidal influence.	Tier 1 Attachment 4
024-2	37° 04' 35" N	76° 22' 0" W	Tide Mill Creek	Outfall 024-2 is a headwall with two concrete pipes that drain the Civil Engineering Building front parking lot. This outfall is subject to tidal influence.	Tier 1 Attachment 4
024-3	37° 04' 37.5" N	76° 21' 58" W	Tide Mill Creek	Outfall 024-3 is a 36-inch diameter concrete pipe in a headwall that discharges into a tributary of the upper reach of Tides Mill Creek. This tributary joins Tides Mill Creek on the airfield side of the creek. This outfall is subject to tidal influence.	Tier 1 Attachment 4

Attachment 6-5

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633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
024-4	37° 04' 36.5" N	76° 22' 4.5" W	Tide Mill Creek	Outfall 024-4 is a headwall with three concrete pipes that drain the back parking lot area of the Civil Engineering building. This outfall is subject to tidal influence.	Tier 2 Attachment 4
024-5	37° 04' 37" N	76° 22' 6" W	Tide Mill Creek	Outfall 024-5 is located on the airfield bank of Tides Mill Creek, and is a headwall with three 24-inch concrete pipes. This outfall is subject to tidal influence.	Tier 2 Attachment 4
024-6	37° 04' 37" N	76° 22' 8.5" W	Tide Mill Creek	Outfall 024-6 is a headwall with one concrete pipe, located behind Civil Engineering and Base Supply. This outfall is subject to tidal influence.	Tier 2 Attachment 4
024-7	37° 04' 38" N	76° 22' 11" W	Tide Mill Creek	Outfall 024-7 is a headwall located on the airfield bank of Tides Mill Creek, with two 24-inch concrete pipes set in the headwall. This outfall is subject to tidal influence.	Tier 2 Attachment 4
024-8	37° 04' 37.5" N	76° 22' 10.5" W	Tide Mill Creek	Outfall 024-8 is located opposite Outfall 024-7, on the Base Supply bank of Tides Mill Creek, and is a headwall with one concrete pipe with flared ends. A concrete drainage swale runs from the outfall to the creek bank. This outfall is subject to tidal influence.	Tier 2 Attachment 4
024-9	37° 04' 35" N	76° 22' 15" W	Tide Mill Creek	Outfall 024-9 is also located behind Base Supply, and has a head wall with one pipe with flared ends. A concrete channel also runs from this outfall to the creek bank. This outfall is subject to tidal influence.	Tier 2 Attachment 4

Attachment 6-6

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633d Air Base Wing HAMPTON, VIRGINIA



Attachment 6-7

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
024-10	37° 04' 37" N	76° 22' 15.5" W	Tide Mill Creek	Outfall 024-10 is a headwall with two 30-inch pipes set in the airfield bank of Tides Mill Creek. Downstream of Outfall 024-10 Tides Mill Creek turns 90 degrees and flows along the side of Base Supply. This outfall is subject to tidal influence.	<u>Tier 1</u> Attachment 4
024-11	37° 04' 32.5" N	76° 22' 24" W	Tide Mill Creek	Outfall 024-11 is a headwall with four 36 inch pipes located on a spur of Tides Mill Creek where the creek turns 90 degrees. This outfall is subject to tidal influence.	<u>Tier 1</u> Attachment 4
024-12	37° 04' 28" N	76° 22' 05" W	Tide Mill Creek	Outfall 024-12 is located on Sweeney Boulevard near Base Supply at a culvert which conducts flow in a drainage ditch along the north side of Sweeney Boulevard under the road to a ditch along the southern side of the road. This outfall is subject to tidal influence.	<u>Tier 1</u> Attachment 4
024-13	37° 04' 32.5" N	76° 22' 20" W	Tide Mill Creek	Outfall 024-13 is a headwall in the airfield bank of Tides Mill Creek. This outfall is subject to tidal influence.	<u>Tier 1</u> Attachment 4
025	37° 04' 13" N	76° 21' 29" W	Back River - Southwest Branch	A 30-inch Corrugated Metal Pipe (CMP) located east of the Langley Inns building that discharges directly into Back River. It appears as if the CMP has separated completely from the headwall. This outfall is subject to tidal influence.	<u>Tier 1</u> Attachment 1

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10-8

633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
026	37° 04' 00" N	76° 21' 56" W	Back River - Southwest Branch	Two 24-inch and two 48-inch RCPs, each with tidal duckbills in place to prevent tidal influence, discharge from a concrete headwall into a grass-lined drainage ditch, approximately 5 feet deep by 8 feet wide, located near the LaSalle Avenue Gate and Guardhouse, which discharges into a marshy area that is located along a small southwestern branch of Back River.	Tier 1 Attachment 1
027	37° 04' 04" N	76° 21' 37" W	Back River - Southwest Branch	A 2-foot-deep by 10-foot-wide grass-lined drainage ditch located next to the Youth Center (Building 61). This outfall is subject to tidal influence.	Tier 1 Attachment 1
028	37° 04' 03" N	76° 21' 45" W	Back River - Southwest Branch	An 18-inch CMP located east of the LaSalle Street Gate and Guardhouse that discharges into a marshy area located near the mouth of Tides Mill Creek.	Tier 1 Attachment 1
029	37° 04' 09" N	76° 21' 28" W	Back River - Southwest Branch	A 30-inch RCP with a flared outlet located east of the Langley Inns building that discharges directly into Back River. This outfall is subject to tidal influence.	Tier 1 Attachment 1
030	37° 04' 17" N	76° 21' 32" W	Back River - Southwest Branch	Two 24-inch RCPs and one 48-inch RCP set in a concrete headwall discharge into a large drainage ditch that drains into Back River. The pipes and drainage ditch are located south of the Hospital (Building 254) and the Dental Clinic (Building 92). This outfall is subject to tidal influence.	Tier 2 Attachment 1
031	37° 04' 32" N	76° 21' 21" W	Brown's Creek, tributary to Back River - Southwest Branch	A 24-inch RCP with a flared outlet located east of the Hospital (Building 254) that discharges into Brown's Creek. This outfall is subject to tidal influence.	Tier 1 Attachment 1

Attachment 6-8

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10-9

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
032	37° 04' 22" N	76° 21' 23" W	Back River - Southwest Branch	A 24-inch RCP with a concrete headwall that discharges into a 2 feet deep by 8 feet wide grass-lined drainage ditch. This outfall shares a similar drainage area with that of Outfall 035. The pipe and headwall are located northeast of the Dental Clinic (Building 92). This outfall is subject to tidal influence.	<u>Tier 1</u> Attachment 1
033	37° 04' 31" N	76° 21' 20" W	Brown's Creek, tributary to Back River - Southwest Branch	A 24-inch RCP with a flared outlet located east of the Hospital (Building 254) that discharges into Brown's Creek. This outfall is subject to tidal influence.	<u>Tier 1</u> Attachment 1
034	37° 04' 24" N	76° 21' 18" W	Back River - Southwest Branch	A 24-inch RCP with a flared outlet located southeast of the Hospital (Building 254) that discharges into Brown's Creek.	<u>Tier 1</u> Attachment 1
035	37° 04' 22" N	76° 21' 23" W	Back River - Southwest Branch	Two 10-inch metal pipes set in a concrete headwall discharge share a similar discharge area with that of Outfall 032. One of the metal pipes is equipped with a backflow-preventing flapper valve at the outlet. This outfall is located due east of the Dental Clinic and is subject to tidal influence.	<u>Tier 1</u> Attachment 1
036	37° 04' 21" N	76° 21' 01" W	Back River - Southwest Branch	A 15-inch Cast Iron Pipe (CIP) that discharges directly into the Back River from the sea wall adjacent to the N. King Street Bridge. This outfall is subject to tidal influence.	<u>Tier 1</u> Attachment 1

Attachment 6-9

10-10

633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
037	37° 04' 21" N	76° 21' 01" W	Back River - Southwest Branch	A 15-inch CIP immediately adjacent to Outfall 036 discharges directly into the Back River from the sea wall adjacent to the N. King Street Bridge. This outfall is subject to tidal influence.	<u>Tier 1</u> <u>Attachment 1</u>
038	37° 04' 33" N	76° 20' 45" W	Back River - Southwest Branch	A 36-inch RCP that runs parallel to Bryant Avenue and discharges directly into the Back River from the sea wall that protects the officer residential area. This outfall is subject to tidal influences.	<u>Tier 1</u> <u>Attachment 1</u>
039	37° 04' 29" N	76° 20' 48" W	Back River - Southwest Branch	A 24-inch TCP that runs parallel to Wright Avenue and discharges directly into Back River from the sea wall that protects the officer residential area. This outfall is subject to tidal influence.	<u>Tier 1</u> <u>Attachment 1</u>
040	37° 04' 24" N	76° 20' 54" W	Back River - Southwest Branch	A 15-inch concrete pipe that discharges directly into Back River from the sea wall located along the perimeter of the Officer's Club building. This outfall is subject to tidal influence.	<u>Tier 1</u> <u>Attachment 1</u>
041	37° 04' 40" N	76° 20' 36" W	Back River - Southwest Branch	A 24-inch TCP that runs parallel to Thompson Street and discharges directly into Back River from the sea wall that protects Buildings 182 and 184. This outfall is subject to tidal influence.	<u>Tier 1</u> <u>Attachment 1</u>
042	37° 04' 39" N	76° 20' 39" W	Back River - Southwest Branch	Three 12-inch concrete pipes and one 6-inch concrete pipe that discharge directly into Back River from the sea wall that protects the ACC Communications Computer System building. This outfall is subject to tidal influence.	<u>Tier 1</u> <u>Attachment 1</u>
	37° 04' 39" N	76° 20' 39" W			
	37° 04' 38" N	76° 20' 38" W			
	37° 04' 37" N	76° 20' 39" W			

Attachment 6-10

10-11



Attachment 6-12

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
043	37° 04' 56" N	76° 20' 24" W	Back River -- Southwest Branch	A 24-inch RCP located along the river front of the NASA Building 643 and covered with concrete and rock rip-rap. This outfall discharges directly into the Back River and is subject to tidal influence.	<u>Tier 1</u> <u>Attachment 1</u>
044	37° 05' 55" N	76° 21' 14" W	Back River -- Northwest Branch	An 18-inch concrete pipe discharge from a concrete headwall into a heavily vegetated ditch. The ditch is likely subject to tidal influence.	<u>Tier 1</u> <u>Attachment 4</u>
045	37° 05' 44" N	76° 21' 08" W	Back River -- Northwest Branch	An 18-inch RCP that drains into a 1-foot deep by 5-foot wide rectangular, grass-lined drainage ditch located east of the Bayview Towers parking lot. The pipe and drainage ditch are subject to tidal influence.	<u>Tier 1</u> <u>Attachment 3</u>
046	37° 05' 47" N	76° 21' 09" W	Back River -- Northwest Branch	A 24-inch RCP with a concrete headwall that discharges into an irregular drainage ditch located just east of the Bayview Towers parking lot. The pipe and drainage ditch are subject to tidal influence.	<u>Tier 1</u> <u>Attachment 3</u>
047	37° 05' 59" N	76° 21' 22" W	Back River -- Northwest Branch	A 24-inch RCP culvert that drains into a shallow grass-line drainage ditch that discharges into the same marshy area as Outfall 021. This outfall is located within the Mobile Radar Building Area.	<u>Tier 1</u> <u>Attachment 4</u>
048	37° 05' 57" N	76° 21' 30" W	Tabb Creek	Pipe located adjacent to the Small Arms Range, under a small footbridge outside the Range berm. Vegetation is extremely thick in this area, making the outfall difficult to observe.	<u>Tier 1</u> <u>Attachment 2</u>
049	37° 04' 01" N	76° 21' 48" W	Back River -- Southwest Branch	A 15-inch RCP that feeds into a grass-lined drainage ditch located near the LaSalle Street Gate and Guardhouse. This outfall discharges into a marshy area that is located near Tide Mill Creek.	<u>Tier 1</u> <u>Attachment 1</u>

10-12

633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
050	37° 04' 23" N	76° 22' 07" W	Ditch to Tide Mill Creek	Two 12-inch concrete pipes which lead into a concrete headwall with two 12-inch concrete structures that flare out. This outfall discharges into a grassy drainage ditch approximately 130 feet north of Building 30 and flows into Tide Mill Creek.	<u>Tier 1</u> Attachment 4
051	37° 05' 20" N	76° 21' 39" W	Canal to Tabb Creek	Two 30-inch concrete pipes and one 24-inch concrete pipe that feed into a concrete headwall. This outfall discharges into a vegetated, tidally-influenced canal that flows towards Tabb Creek.	<u>Tier 1</u> Attachment 2
052	37° 05' 23" N	76° 21' 38" W	Canal to Tabb Creek	A 30-inch concrete pipe that feeds into a concrete headwall. The pipe discharges to a vegetated, tidally-influenced canal that flows towards Tabb Creek.	<u>Tier 1</u> Attachment 2
053	37° 05' 42" N	76° 20' 59" W	Back River - Northwest Branch	This outfall is always submerged, and cannot be seen even at low tide. It is only noticeable when a strong storm water discharge causes water to visibly bubble up from the submerged outfall. Per the storm sewer map, the outfall consists of one 24-inch terra cotta pipe and one 18-inch concrete pipe. The Aero Club wash rack discharges to an upstream portion of this storm sewer line, at Manhole 1358.	<u>Tier 1</u> Attachment 3

Attachment 6-11

10-13

633d Air Base Wing HAMPTON, VIRGINIA

Outfall Number Designation	Coordinates		Receiving Waters	Description	
	Latitude	Longitude			
054	37° 04' 58" N	76° 20' 22" W	Back River - Southwest Branch	This outfall is included in Langley AFB's VPDES permit, although it is not a storm water outfall. It is a dedicated pipe through which the Building 640 cooling tower discharges blow-down water. This pipe is not visible from the surface, since it runs underground from the cooling tower into the Back River, where it is submerged.	Tier 1 Attachment 1
055	37° 04' 09" N	76° 22' 05" W	Tide Mill Creek	Two 12-inch RCP pipes discharge from a headwall into an unnamed tributary of Tides Mill Creek. This outfall drains storm water from the parking lot area between Buildings 21 and 23.	Tier 1 Attachment 4
056	37° 05' 11" N	76° 22' 16" W	UT Tabb Creek	A 24-inch concrete pipe that leads into a concrete headwall located on the corner of Durand Loop near the Maintenance Shop (Building 1370).	Tier 1 Attachment 2
057	37° 05' 03" N	76° 20' 24" W	Back River - Southwest Branch	VDEQ-identified internal outfall consisting of discharge points for storm water accumulation retained in the six secondary containment dikes for the Bulk Fuels Storage Yard.	Tier 1 Attachment 1
058	37° 04' 26" N	76° 20' 51" W	Back River - Southwest Branch	A concrete pipe that is <u>currently capped</u> would discharge directly into Back River from the sea wall located at the southern most point along the perimeter of the semi-circular wall. This outfall would not subject to tidal influence. It is not currently active.	Tier 1 Attachment 1
571	37° 05' 06" N	76° 20' 29" W	Back River - Southwest Branch	VDEQ-identified internal outfall consisting of discharge points for storm water accumulation retained in the six secondary containment dikes for the	N/A Internal outfall

Attachment 6-12

ATTACHMENT 11

303(d) LISTED SEGMENTS

11-1
M E M O R A N D U M

Department of Environmental Quality
Tidewater Regional Office

5636 Southern Boulevard

Virginia Beach, VA 23462

SUBJECT: VPDES Application Requests
633d Air Base Wing (formerly Langley Air Force Base)
VPDES Permit No. VA0083194

From TO: Stephen Cioccia, TRO

To FROM: Debbie Thompson, UTRO

DATE: February 22, 2010

COPIES: TRO File - Facility #643 PPP

An application has been received for the following facility:

633d Air Base Wing

Topo Names: Hampton & Newport News North Quadrangle # 65D
Permit No.: VA0083194

Receiving Streams: See Attached Maps

Attached is a Topographic Map showing facility boundaries and outfall location(s).

Attached is a STORET Request Form if STORET data is requested.

We request the following information from you:

1. ☒ Tier Determination. Tier: See outfall listing attachment 1-6
Please include a basis for the tier determination.
2. Not requested STORET Data and STORET Station Location(s).
3. ☒ Is this facility mentioned in a Management Plan?
☒ No ☐ Yes ☐ No, but will be included when the Plan is updated.
4. ☒ Are limits contained in a Management Plan?
☒ No ☐ Yes (If Yes, Please include the basis for the limits.)
5. ☒ Does this discharge go to a 303(d) stream segment? see attachment 1-6

Return Due Date: March 9, 2010 Date Returned: 3/9/10

STORET Station: _____

STORET Station: _____

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description		
VAT-C07E_SWB01A08	Southwest Branch - Back River	HAMPTON CITY	Headwaters of Southwest Branch downstream to Langley View. Includes Tides Mill Cr. CBP segment MOBPH. Portion of DSS shellfish condemnation # 054-021E (effective 2004-06-02).		
VA Overall AU 5D	1.35 SQUARE MILES				
Beneficial Use	Impairment	Cause Category	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	Aquatic Plants	Category 5A 2006 76081 /	2008	2010	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria. Previously (2006 IR) listed as TMDL-ID: CB-MOBPH.
			Sources: Agriculture Atmospheric Deposition - Nitrogen Clean Sediments Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SED or CSO)		
Aquatic Life	Oxygen, Dissolved	Category 5A 2006 76082 /	2006	2010	Category 5A 2006 76082 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer. Previously (2006 IR) listed as TMDL-ID: CB-MOBPH.
			Sources: Agriculture Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SED or CSO)		

Attachment 1-1

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
Fish Consumption	PCB In Fish Tissue	2006	Category 5A 2006 76068 / 2008 C07E-01-PCB The Fish Consumption Use is Impaired based on extrapolation of PCB contaminated fish tissue data upstream (Tabb creek, Northwest & Southwest Branches) and the VDH fish consumption advisory for PCBs in Tabb Creek issued 12/13/04.
Open-Water Aquatic Life	Oxygen, Dissolved	2006	Category 5A 2006 76082 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is Impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer. Previously (2006 IR) listed as TMDL-ID: CB-MOBPH.
Shallow-Water Submerged Aquatic Vegetation	Aquatic Plants	2006	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is Impaired based on failure to meet the SAV acreage criteria. Previously (2006 IR) listed as TMDL-ID: CB-MOBPH.

Sources: Source Unknown

Sources: Agriculture
Atmospheric Deposition - Nitrogen
Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges
Sources Outside State Jurisdiction or Borders
Wet Weather Discharges (Non-Point Source)
Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Sources: Agriculture
Atmospheric Deposition - Nitrogen
Clean Sediments
Industrial Point Source Discharge
Internal Nutrient Recycling
Loss of Riparian Habitat
Municipal Point Source Discharges
Sediment Resuspension (Clean Sediment)
Sources Outside State Jurisdiction or Borders
Wet Weather Discharges (Non-Point Source)
Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Attachment 1-2

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
VAT-C07E_TBC01A04	Tabbs Creek - Back River	POQUOSON CITY	Tributary to Northwest Branch Back River, entirety of creek CBP segment MOBPH. Portion of DSS shellfish condemnation # 054-021 E (effective 20061019).
VA Overall AU 5D	0.10 SQUARE MILES		
Beneficial Use	Impairment	First Listed on 303(d)	TMDL Schedule
Aquatic Life	Aquatic Plants	2006	2010
		Category 5A 2006 76081 /	
		Impairment Specific Comments and/or Impairment Specific VA Category Category 5A 2006 76081 / 2008 MOBPH-SAY-BAY The Shallow-Water Submerged Aquatic Vegetation Use is Impaired based on failure to meet the SAV acreage criteria. Previously (2006 IR) listed as TMDL-ID: CB-MOBPH	
		Sources: Agriculture Atmospheric Deposition - Nitrogen Clean Sediments Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSD or OSD)	
Aquatic Life	Oxygen, Dissolved	2006	2010
		Category 5A 2006 76082 /	
		Sources: Agriculture Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSD or OSD)	
		Category 5A 2008 76082 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is Impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer. Previously (2006 IR) listed as TMDL-ID: CB-MOBPH	

Attachment 2-1

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
Fish Consumption	PCB In Fish Tissue	2006	2018
		Category 5A 2006 76086 /	Category 5A 2006 76086 / 2008 C07E-01-PCB The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.
Open-Water Aquatic Life	Oxygen, Dissolved	2006	2010
		Category 5A 2006 76082 /	Category 5A 2006 76082 / 2008 MOBPH-DQ-BAY The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer. Previously (2008 IR) listed as TMDL-ID: CB-MOBPH
Shallow-Water Submerged Aquatic Vegetation	Aquatic Plants	2006	2010
		Category 5A 2006 76081 /	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria. Previously (2008 IR) listed as TMDL-ID: CB-MOBPH.

Attachment 2-2

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
<u>Chesapeake Bay/Atlantic/Small Coastal Basins</u>			
VAT-C07E_BAK01A00	Mainstem Back River	HAMPTON CITY	From Junction of Northwest and Southwest Branches downstream to mouth of Back River. Portion of CBP Segment MOBPH. No DSS shellfish condemnations.
VA Overall AU 5A	3.58 SQUARE MILES		
Beneficial Use	Impairment	Cause Category	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	Aquatic Plants	Category 5A 2006 76081 /	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria. Previous (2006) TMDL-ID of CB-MOBPH.
		First Listed on 303(d)	TMDL Schedule
		2006	2010
Sources: Agriculture Atmospheric Deposition - Nitrogen Clean Sediments Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)			
Aquatic Life	Oxygen, Dissolved	Category 5A 2006 76082 /	Category 5A 2006 76082 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer. Previous (2006) TMDL-ID of CB-MOBPH.
		2006	2010
Sources: Agriculture Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)			

Attachment 3-1

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
Fish Consumption	PCB In Fish Tissue	2006 2018	Category 5A 2006 76068 / 2008 C07E-01-PCB The Fish Consumption Use Is Impaired based on extrapolation of PCB contaminated fish tissue data upstream (Tebb creek, Northwest & Southwest Branches) and the VDH fish consumption advisory for PCBs in Tabb Creek issued 12/13/04.
Open-Water Aquatic Life	Oxygen, Dissolved	2006 2010	Category 5A 2006 76082 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).
Shallow-Water Submerged Aquatic Vegetation	Aquatic Plants	2006 2010	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria.

Attachment 3-2

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
VAT-C07E_ZZZ01A00	Unsegmented estuaries In C07E	HAMPTON CITY	Non segmented areas of C07E. CBP Segment MOBPH. No DSS direct shellfish harvesting condemnation.
VA Overall AU 5A	1.59 SQUARE MILES		
Beneficial Use	Impairment	Cause Category	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	Aquatic Plants	Category 5A 2006 76081 /	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is Impaired based on failure to meet the SAV acreage criteria.
Sources: Agriculture Atmospheric Deposition - Nitrogen Clean Sediments Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or C&C)			
Aquatic Life	Oxygen, Dissolved	Category 5A 2006 76082 /	Category 5A 2006 76082 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is Impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer.
Sources: Agriculture Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or C&C)			

Attachment 4-1

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
Fish Consumption	PCB In Fish Tissue	2006	Category 5A 2006 76068 / 2008 C07E-01-PCB The Fish Consumption Use is impaired based on extrapolation of PCB contaminated fish tissue data upstream (Tabb creek, Northwest & Southwest Branches) and the VDH fish consumption advisory for PCBs in Tabb Creek issued 12/13/04. Previously (2006 IR) listed as TMDL-ID: VDH-Bay PCBs.
Open-Water Aquatic Life	Oxygen, Dissolved	2006 2010	Category 5A 2006 76082 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer.
Shallow-Water Submerged Aquatic Vegetation	Aquatic Plants	2006 2010	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria.

Attachment 4-1

11-9

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description		
VAT-C07E_NW802A06	Northwest Br. Back River - Lower [DSS OPEN]		HAMPTON CITY From area of confluence of Topping Creek (approx. RM 1.5) downstream to confluence with mainstem Back R. CBP Segment MOBPB. Portion of DSS shellfish condemnation # 054-021(effective 20081019),No DSS direct shellfish harvesting condemnation.		
VA Overall AU 5A	0.63 SQUARE MILES				
Beneficial Use	Impairment	Cause Category	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	Aquatic Plants	Category 5A 2008 76081 /	2008	2010	Category 5A 2008 76081 / 2008 MOBPB-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is Impaired based on failure to meet the SAV acreage criteria.
Aquatic Life	Oxygen, Dissolved	Category 5A 2008 76082 /	2006	2010	Sources: Agriculture Atmospheric Deposition - Nitrogen Clean Sediments Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO) Category 5A 2008 76082 / 2008 MOBPB-DO-BAY The Open-Water Aquatic Life Use is Impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer.
					Sources: Agriculture Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Attachment 4-1

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
Fish Consumption	PCB In Fish Tissue	2006	Category 5A 2006 76068 / 2008 C07E-01-PCB The Fish Consumption Use is impaired based on extrapolation of PCB contaminated fish tissue data upstream (Tabb Creek, Northwest & Southwest Branches) and the VDH fish consumption advisory for PCBs in Tabb Creek issued 12/13/04. Previously (2006 IR) listed as TMDL-ID: VDH-Bay PCBs.
Open-Water Aquatic Life	Oxygen, Dissolved	2006	Category 5A 2006 76062 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer.
Shallow-Water Submerged Aquatic Vegetation	Aquatic Plants	2006	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria.
		2010	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria.
		2006	Sources: Agriculture Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sources Outside State Jurisdiction or Burdens Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)
		2010	Sources: Agriculture Atmospheric Deposition - Nitrogen Clean Sediments Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Burdens Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Attachment 4-2

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description		
VAT-C07E_SWB02A08	Southwest Br. Back River - Lower [DSS OPEN]		HAMPTON CITY to confluence with mainstem Back R. CBP Segment MOBPH. Portion of DSS shellfish condemnation # 054-021 (effective Portion of DSS shellfish condemnation # 054-021 (effective 20061019). No DSS direct shellfish harvesting condemnation.		
VA Overall AU 5A	0.18 SQUARE MILES				
Beneficial Use	Impairment	Cause Category	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	Aquatic Plants	Category 5A 2006 76081 /	2006	2010	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is Impaired based on failure to meet the SAV acreage criteria.
			Sources: Agriculture Atmospheric Deposition - Nitrogen Clean Sediments Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sediment Resuspension (Clean Sediment) Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)		
Aquatic Life	Oxygen, Dissolved	Category 5A 2006 76082 /	2006	2010	Category 5A 2006 76082 / 2008 MOBPH-DQ-BAY The Open-Water Aquatic Life Use is Impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer.
			Sources: Agriculture Atmospheric Deposition - Nitrogen Industrial Point Source Discharge Internal Nutrient Recycling Loss of Riparian Habitat Municipal Point Source Discharges Sources Outside State Jurisdiction or Borders Wet Weather Discharges (Non-Point Source) Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)		

Attachment 5-1

Attachment 5-1

List of Impaired (Category 5) Waters in 2008 IR

Assessment Unit ID	Waterbody Name	City / County*	Assessment Unit Description
Fish Consumption	PCB in Fish Tissue	2006	Category 5A 2006 76068 / 2008 C07E-01-PCB The Fish Consumption Use is impaired based on extrapolation of PCB contaminated fish tissue data upstream (Tabb creek, Northwest & Southwest Branches) and the VDH fish consumption advisory for PCBs in Tabb Creek issued 12/13/04. Previously (2008 IR) listed as TMDL-IDVDH-Bay PCBs.
Open-Water Aquatic Life	Oxygen, Dissolved	2006	Category 5A 2006 76082 / 2008 MOBPH-DO-BAY The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer.
Shallow-Water Submerged Aquatic Vegetation	Aquatic Plants	2006	Category 5A 2006 76081 / 2008 MOBPH-SAV-BAY The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria.

Attachment 5-2

ATTACHMENT 12

TABLE III (a) AND TABLE III (b) -
CHANGE SHEETS

TABLE III(a)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001/002	TKN, Propylene Glycol, BOD5	1/6 months to Delete from permit Part I.A. Effluent page and address in Special Condition	Monitoring only No Limits to Delete from permit Part I.A. Effluent page and address in Special Condition.	Deicing is a rare occurrence at this facility due to climate/weather conditions in the area. Even with a deicing event, not enough flow to make it to sample point. This activity will be addressed in a special condition only.	DLT 08/10
012	Flow, pH, TPH, Naphthalene	1/6 months to NA (monitoring is being moved to outfall 053)	Flow, TPH, Naphthalene no limits, pH 6.0 min-9.0 max (all limits are being moved to outfall 053)	Outfall 012 pipe is submerged 100% of the time and inaccessible; therefore monitoring is relocated to outfall 053. This new location is representative of the activities within the common area.	DLT 08/10
053	Flow, pH, TPH, Naphthalene	No change	Flow, TPH, Naphthalene no limits, pH 6.0 min-9.0 max	Outfall 053 is representative of the drainage area and is accessible for monitoring purposes	DLT 08/10

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL
Deicing Special Condition Language (NEW)	It is appropriate to address deicing monitoring in a special condition as it is an infrequent activity and is better monitored and in this format	DLT 08/10

12-1

TABLE III (b)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL

ATTACHMENT 13

NPDES INDUSTRIAL PERMIT RATING WORKSHEET
AND
EPA PERMIT CHECKLIST

13-1 NPDES Permit Rating Work Sheet

NPDES NO: V A 0 0 8 3 1 9 4

Facility Name:

 U I S L A I N G L E Y I A F B - J O I N T B A S E L A I N G L E Y -
EUSTIS

City: H A M P T O N

Receiving Water: C H E S B I A Y A T L A N T I C O C E A N

Reach Number:

☒ Regular Addition
☐ Discretionary Addition
☐ Score change, but no status change
☐ Deletion

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate

☐ YES: score is 600 (stop here) ☒ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

☐ YES: score is 700 (stop here)
☒ NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: 4 5 8 1 Primary SIC Code: 9 7 1 1

Other SIC Codes:

Industrial Subcategory Code: 0 0 0 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input checked="" type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: 0 0

Total Points Factor 1: 0 0

FACTOR 2: Flow/Stream Flow Volume (Complete Either Section A or Section B; check only one)

Section A--Wastewater Flow Only Considered

Wastewater Type (See Instructions)	Code	Points
Type I: Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow > 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50 MGD	<input type="checkbox"/> 14	30
Type II: Flow < 1 MGD	<input type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow > 5 to 10 MGD	<input type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III: Flow < 1 MGD	<input type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input checked="" type="checkbox"/> 32	10
Flow > 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

Section B--Wastewater and Stream Flow Considered

Wastewater Type (See Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10%	<input type="checkbox"/> 41	0
	> 10% to < 50%	<input type="checkbox"/> 42	10
	> 50%	<input type="checkbox"/> 43	20
Type II:	<10%	<input type="checkbox"/> 51	0
	> 10% to < 50%	<input type="checkbox"/> 52	20
	> 50%	<input type="checkbox"/> 53	30

Code Checked from Section A or B: 3 2

Total Points Factor 2: 1 0

2

13-3 **NPDES Permit Rating Work Sheet**

NPDES No.: VA0083194

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?*

	Code	Points
<u> </u> Yes	1	10
<u>X</u> No	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

	Code	Points
<u>X</u> Yes	1	0
<u> </u> No	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

	Code	Points
<u> </u> Yes	1	10
<u>X</u> No	2	0

Code Number Checked: A 2 B 1 C 2

Points Factor 5: A 00 + B 0 + C 00 = 00 TOTAL

FACTOR 6: Proximity to Near Coastal Waters

- A. *Base Score: Enter flow code here (from Factor 2): 32 Enter the multiplication factor that corresponds to the flow code: 05*

Check appropriate facility HPRI Code (from PCS):

HPRI #	Code	HPRI Score	Flow Code	Multiplication Factor
<u> </u> 1	1	20	11, 31, or 41	0.00
<u> </u> 2	2	0	12, 32, or 42	0.05
<u> </u> 3	3	30	13, 33, or 43	0.10
<u>X</u> 3	3	30	14 or 34	0.15
<u> </u> 4	4	0	21 or 51	0.10
<u> </u> 5	5	20	22 or 52	0.30
			23 or 53	0.60
			24	1.00

HPRI code checked: 3

Base Score: (HPRI Score) 30 x (Multiplication Factor) .05 = 1.5 (TOTAL POINTS)

- B. *Additional Points--NEP Program*

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
<u>X</u> Yes	1	10
<u> </u> No	2	0

- C. *Additional Points--Great Lakes Area of Concern*

for a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)

	Code	Points
<u> </u> Yes	1	10
<u>X</u> No	2	0

Code Number Checked: A 3 B 1 C 2

Points Factor 6: A 1.5 + B 10 + C 00 = 11.5 TOTAL

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NPDES Permit Rating Work Sheet

NPDES NO: VA0083194

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	<u>0</u>
2	Flow/Stream flow Volume	<u>10</u>
3	Conventional Pollutants	<u>0</u>
4	Public Health Impacts	<u>0</u>
5	Water Quality Factors	<u>0</u>
6	Proximity to Near Coastal Waters	<u>11.5</u>
TOTAL (Factors 1-6)		<u>21.5</u>

S1. Is the total score equal to or greater than 80? ☐ Yes (Facility is a major) ☒ No

S2. If the answer to the above question is no, would you like this facility to be discretionary major?

☐ No
☐ Yes (add 500 points to the above score and provide reason below:

Reason:

NEW SCORE: 21.5

OLD SCORE: 21.5

Delira L. Thompson

 Permit Reviewer's Name

(757) 518 - 2162
 Phone Number

August 23, 2010

 Date

13-5

Revised 2/2003

**State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review**

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name: U.S. Langley AFB – Joint Base Langley-Eustis

NPDES Permit Number: VA00083194

Permit Writer Name: Debra L. Thompson

Date: August 23, 2010

Major []

Minor [X]

Industrial [X]

Municipal []

I.A. Draft Permit Package Submittal Includes:

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?		X	
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?			X
8. Whole Effluent Toxicity Test summary and analysis?	X		
9. Permit Rating Sheet for new or modified industrial facilities?	X		

I.B. Permit/Facility Characteristics

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		

3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		
<u>I.B. Permit/Facility Characteristics - cont.</u>	Yes	No	N/A
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?	X		
a. Has a TMDL been developed and approved by EPA for the impaired water?		X	
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?	X		
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?		X	
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?			X
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Checklist – for POTWs (To be completed and included in the record only for POTWs)

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?			
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?			

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?			
2. Does the fact sheet discuss whether “antibacksliding” provisions were met for any limits that are less stringent than those in the previous NPDES permit?			

II.C. Technology-Based Effluent Limits (POTWs)	Yes	No	N/A
1. Does the permit contain numeric limits for <u>ALL</u> of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS, and pH?			
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?			
a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?			
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly) limits?			
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?			
a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?			
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL?			
II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A

3. Does the fact sheet provide effluent characteristics for each outfall?			
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?			
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?			
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?			
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?			
e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?			
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?			
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?			
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?			
8. Does the record indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?			

<u>II.E. Monitoring and Reporting Requirements</u>	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?			
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?			
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?			
4. Does the permit require testing for Whole Effluent Toxicity?			

<u>II.F. Special Conditions</u>	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?			
2. Does the permit include appropriate storm water program requirements?			

II.F. Special Conditions – cont.	Yes	No	N/A
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			

4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?			
5. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?			
6. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?			
a. Does the permit require implementation of the "Nine Minimum Controls"?			
b. Does the permit require development and implementation of a "Long Term Control Plan"?			
c. Does the permit require monitoring and reporting for CSO events?			
7. Does the permit include appropriate Pretreatment Program requirements?			

II.G. Standard Conditions

II.G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?			
List of Standard Conditions – 40 CFR 122.41			
Duty to comply	Property rights	Reporting Requirements	
Duty to reapply	Duty to provide information	Planned change	
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance	
not a defense	Monitoring and records	Transfers	
Duty to mitigate	Signatory requirement	Monitoring reports	
Proper O & M	Bypass	Compliance schedules	
Permit actions	Upset	24-Hour reporting	
		Other non-compliance	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?			

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Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Review Checklist – For Non-Municipals
(To be completed and included in the record for all non-POTWs)

II.A. Permit Cover Page/Administration

	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits - General Elements

	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?	X		

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)

	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?		X	
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	X		
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a "reasonable measure of ACTUAL production" for the facility (not design)?			X
5. Does the permit contain "tiered" limits that reflect projected increases in production or flow?		X	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ) – cont.

	Yes	No	N/A
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?	X		
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

II.D. Water Quality-Based Effluent Limits

	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?		X	
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?		X	
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?			
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?			
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?			
e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?			
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?			X
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?			X
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?			X
8. Does the fact sheet indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

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II.E. Monitoring and Reporting Requirements

	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State's standard practices?			X

II.F. Special Conditions

	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?		X	
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?			
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		


II.G. Standard Conditions

II.G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		
List of Standard Conditions – 40 CFR 122.41			
Duty to comply	Property rights	Reporting Requirements	
Duty to reapply	Duty to provide information	Planned change	
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance	
not a defense	Monitoring and records	Transfers	
Duty to mitigate	Signatory requirement	Monitoring reports	
Proper O & M	Bypass	Compliance schedules	
Permit actions	Upset	24-Hour reporting	
		Other non-compliance	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

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Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Debra L. Thompson</u>
Title	<u>Environmental Engineer Senior</u>
Signature	<u></u>
Date	<u>August 23, 2010</u>

ATTACHMENT 14

CHRONOLOGY SHEET

VPDES Individual Permit

Permit No: VA0083194

User Manual

Application

Facility:

US - Langley AFB - Joint Base Langley-Eustis

Owner: US Air Force - Langley Air Force Base

Active

Permit Writer:

Thompson Debra L

History

General Information

Events

Special Conditions - Permit

Outfall Information/Limits

Billing Info

Land Application

GIS Information

Events

Code	Description	Date Anticipated	Date Completed	Comments
PREVELD	Old expiration date		05/02/2010	
DTLFP	Reissuance letter mailed		05/31/2009	
APRPHOCAL1	First Application Reminder Phone Call		07/06/2009	
APRPHOCAL2	Second Application Reminder Phone Call		09/04/2009	
APDU	Reissuance application due		11/03/2009	
APRD	Application received at RO 1st time		10/30/2009	
ROAPCP	Application Administratively complete		08/18/2010	
APCOMLET	App complete letter sent to permittee		08/18/2010	
DT1VDH	App sent to State Agencies (1st in comm)		02/19/2010	
DT1CYDH	Comments rec'd from State Agencies on		03/05/2010	DSS comments rec'd
APCP	Application totally / technically complete		08/18/2010	
DTSITE	Site visit		09/16/2009	site mtg 07/02/09
DTSITEPR	Site inspection report		10/17/2009	
DTDDP	Draft permit developed		09/14/2010	
DTREV	Draft reviewed		09/21/2010	to MHS for review
DTOWN1	FS/SOB draft permit sent to owner			
DTORH	First time comments received from owner			
DTOWN2	FS/SOB draft permit sent to owner 2nd time			
DTOWNC2	Second time comments received from owner			
DTPNAUT	Public notice authorization received from owner			
DTNEWS	Public notice letter sent to newspaper			
PH2CO	PH sent to CO for mailing list web site dist			
LGNPERM	Local gov't notification			
PHOT	Date of Public Notice			
PHHEAR	Public hearing date			
DTSIGN	Date Permit signed			
DTEFF	Permit effective			
DTDMRDUE	First DMR due			
FLED	Permit expires		05/02/2010	
MISC	Miscellaneous		02/22/2010	app to planning for tier determination